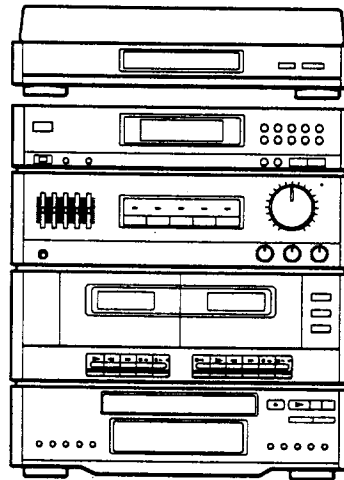


LBT-D117CD

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
UK Model*



- LBT-D117CD is composed of following models. As for the service manual it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR LBT-D117CD

STEREO DECK RECEIVER	HCD-D117
TURNTABLE	PS-LX49P

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-501-374-11	ANTENNA, LOOP (AM)
3-754-667-11	MANUAL, INSTRUCTION (ENGLISH)(UK)
3-754-667-21	MANUAL, INSTRUCTION (ENGLISH)(US, Canadian)
3-754-667-31	MANUAL, INSTRUCTION (FRENCH)(Canadian)
3-754-667-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)
3-754-667-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)
3-754-669-61	MANUAL, INSTRUCTION (ENGLISH, GERMAN, POLAND, RUSSIAN) (East European)
* 4-950-627-01	INDIVIDUAL CARTON (AEP)
* 4-950-629-01	INDIVIDUAL CARTON (East European)
* 4-950-630-01	INDIVIDUAL CARTON (UK)
* 4-950-775-01	INDIVIDUAL CARTON (US, Canadian)
1-501-369-11	ANTENNA (FM)

IT : Italian model



SPECIFICATIONS

Power requirements	120V AC, 60Hz (US, Canadian) 220 — 230 V AC, 50/60Hz (AEP) 240V AC, 50Hz (UK)
Power consumption	75 W (US, Canadian, AEP) 150W (UK)
Weight	Approx. 8.6 kg (18 lb 15 oz)
Dimensions	Approx. 355 × 380 × 325 mm (14 × 15 × 12 7/8 inches) (w/h/d, including projections)

Supplied accessories

45-rpm adaptor (1)
Remote commander RM-S171 (1)
FM wire antenna (1) (except German model)
AM loop antenna (1)
Batteries Sony SUM-3 (NS) (2)

Design and Specifications subject to change without notice.

**COMPACT HiFi
STEREO SYSTEM
SONY®**

HCD-D117

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
East European Model
UK Model*



• HCD-D117 is the
STEREO DECK RECEIVER
in LBT-D117CD.

SPECIFICATIONS

Tuner

System FM stereo
FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 to 108 MHz
Antenna 75 ohms unbalanced
Intermediate frequency 10.7 MHz

MW/LW tuner section

Tuning range MW: 530 to 1,710 kHz (US, Canadian model)
MW: 532 to 1,611 kHz (IT model)
MW: 531 to 1,602 kHz (other models)
LW: 153 to 279 kHz (other models)
LW: 144 to 288 kHz (IT model)

Antenna AM loop antenna
External antenna terminal
Intermediate frequency 450 kHz

Amplifier

DIN power output 20 W + 20 W (6 ohms, at 1 kHz)

Continuous RMS power output
23 W + 23 W (6 ohms, at 1 kHz,
5% THD)

Music power output 40 W + 40 W (6 ohms)


Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

Frequency response VIDEO: 15 Hz to 50 kHz ± 0 dB
 -3 dB

Cassette deck

Recording system 4-track 2-channel stereo
Frequency response DOLBY NR OFF
With Type II cassette (Sony UX-S)
40 Hz to 14 kHz (± 3 dB)
With Type I cassette (Sony HF-S)
40 Hz to 13 kHz (± 3 dB)

Dolby noise reduction manufactured under license from
Dolby Laboratories Licensing Corporation.
"DOLBY" and the double-D symbol  are trademarks of
Dolby Laboratories Licensing Corporation.

Model Name Using Similar Mechanism	HST-D107
Tape Transport Mechanism Type	TCM-180VW-H7
Model Name Using Similar Mechanism	HCD-D115
CD Mechanism Type	CDM14L-5BD1
Base Unit Name	BU-5BD1

Wow and flutter W.PEAK $\pm 0.2\%$ (DIN)

Compact disc player

Frequency response 2 Hz to 20 kHz ± 0.5 dB
Signal-to-noise ratio More than 93 dB
Dynamic range More than 90 dB
Harmonic distortion Less than 0.008% (1 kHz)
Channel separation More than 90 dB (1 kHz)
120 V AC, 60 Hz (US Canadian model)
220-230 V AC, 50/60 Hz (AEP, IT model)

General

Power requirements 240 V AC, 50 Hz
Power consumption 150 W (UK model)
75 W (other models)
Weight Approx. 8.6 kg (18 lb 15oz)
Dimensions Approx. 355 \times 380 \times 325 mm
(14 \times 15 \times 12 $\frac{7}{8}$ inches)
(w/h/d, including projections)

Supplied accessories

45-rpm adaptor (1)
Remote commander RM-S171 (1)
FM wire antenna (1)
AM loop antenna (1)
Batteries Sony SUM-3 (NS) (2)

Design and specifications subject to change without notice.

COMPACT HiFi STEREO SYSTEM
SONY®

SAFETY CHECK-OUT

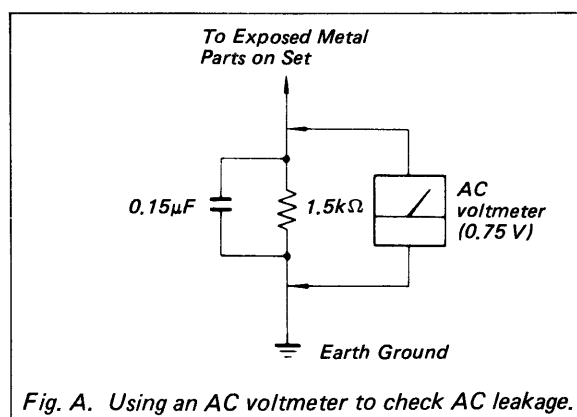
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



SAFETY-RELATED COMPONENT WARNING!!

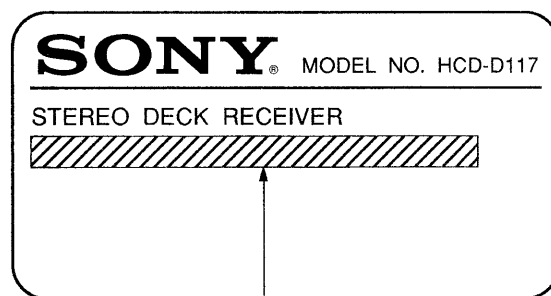
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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MODEL IDENTIFICATION

— Model Number Portion —



US, Canadian model : AC : 120 V ~ 60Hz
 AEP, Germany, Italian, East European model : AC : 220—230V ~ 50/60Hz
 UK model : AC : 240V ~ 50Hz

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

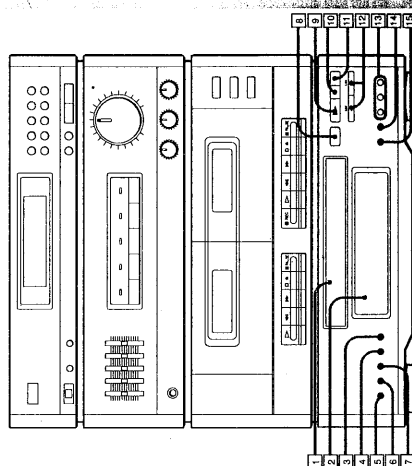
SECTION 1 GENERAL

This section is extracted
from instruction manual.

Location of Controls

Compact Disc Player

- 1 Disc Tray
 - 2 Display window
 - 3 CLEAR (program clear) button (20)
 - 4 CHECK (program check) button (20)
 - 5 TIME button (16)
 - 6 REPEAT button (22)
 - 7 FADE button (26)
 - 8 OPEN/CLOSE button (15)
 - 9 (play) button (15)
 - 10 (pause) button (15)
 - 11 (stop) button (15)
 - 12 (AMS*) buttons (17)
 - 13 PLAY MODE button
 - 14 PROGRAM button (19)
 - 15 SHUFFLE button (18)
 - 16 CONTINUE button (19)
 - 17 MUSIC SCAN button (21)
 - 18 EDIT button (24, 26)
- * AMS is the abbreviation of Automatic Music Sensor.



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Location of Controls

Refer to the pages indicated in () for details.

Tuner

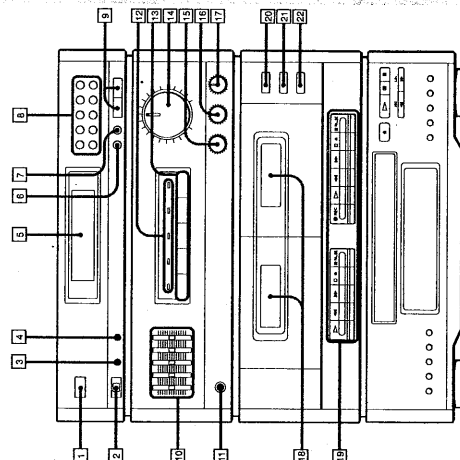
- 1 POWER switch (6)
- 2 Remote sensor
- 3 MEMORY button (10)
- 4 ST/MUTE button (9)
- 5 Display window
- 6 SLEEP button (10)
- 7 BAND SELECT button (9)
- 8 Buttons for storing station frequencies (10)
- 9 DUAL MODE TUNING buttons (9, 10)

Amplifier

- 10 GRAPHIC EQUALIZER controls (7)
- 11 HEADPHONES jack
- 12 Function indicators
- 13 Function selectors
- 14 VIDEO/TAPE/CD/TUNER/PHONO (VOLUME control) (7)
- 15 SURROUND control (7)
- 16 DBFB (dynamic bass feedback) control (7)
- 17 BALANCE control (7)

Cassette Deck

- 18 Cassette holders
- 19 Tape operation buttons (11)
- 20 Leftward fast winding
- 21 Rightward fast winding
- 22 Forward play
- 23 Stop/eject
- 24 PAUSE/Pause
- 25 REC/Record
- 26 TAPE SELECT button (11, 12, 14)
- 27 DUBBING SPEED button (14)
- 28 DOLBY NR (noise reduction) switch (11, 12)



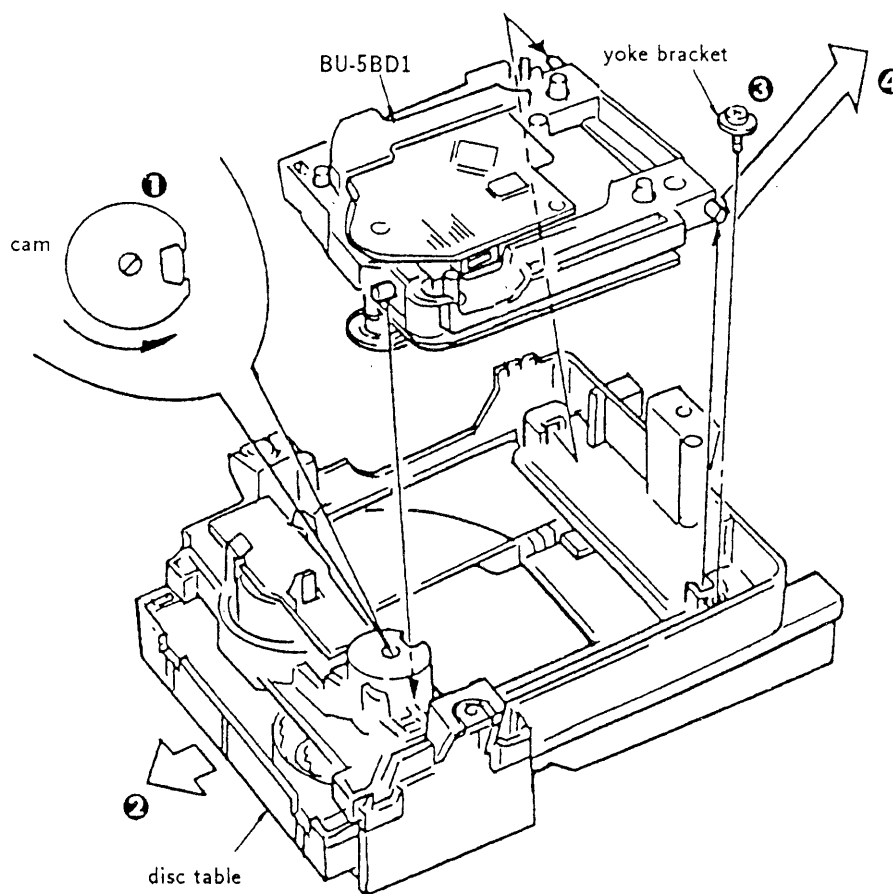
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SECTION 2 DISASSEMBLY OF BASE UNIT

Note :

Follow the disassembly procedure in the numerical order given.

- ❶ Turn the cam to the direction of arrow (Counter clock wise) by minus screw driver.
- ❷ Take off the disc table.
- ❸ Remove the yoke bracket.
- ❹ Remove the MD (BU-5BD1) to the direction of arrow.



SECTION 3 ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENTS

- Clean the following parts with a denatured alcohol-moistened swab :

record/playback heads	pinch rollers
erase heads	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	30—70g·cm (0.42—0.97oz·inch)
FWD Back tension	CQ-102C	1.5—5.5g·cm (0.020—0.076oz·inch)
FF. REW	CQ-201B	63g·cm or more (0.87oz·inch)

3-2. ELECTRICAL ADJUSTMENTS

0dB = 0.775V (AF)
0dB = 0.1μV (RF)

CASSETTE DECK SECTION

- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.

- Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF
TAPE SELECT switch : TYPE I

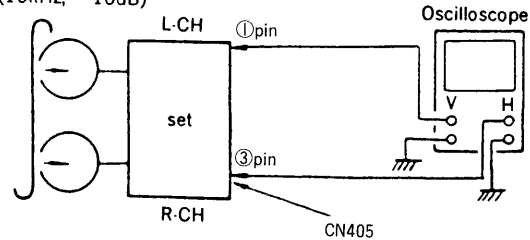
Type	Signal	Used for
P-4-A100	10kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS-48B	3kHz, 0dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

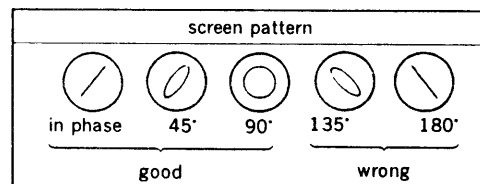
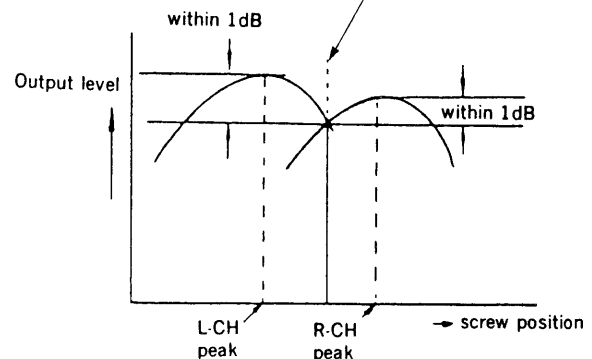
Note: Perform this adjustments for both decks.

Procedure :

- Mode : FWD playback
test tape
P-4-A100
(10kHz, -10dB)

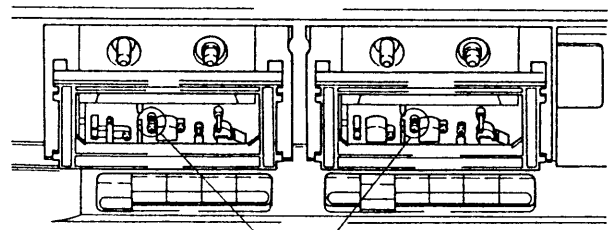


- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location :

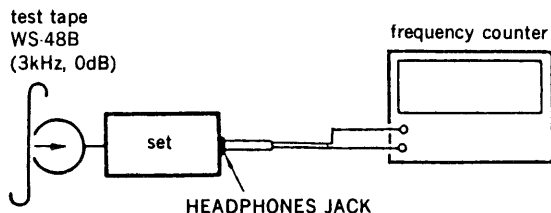


Adjustment screw
REC/PB head (deck B)
or PB head (deck A)

Tape Speed Adjustment

Procedure :

Mode : playback



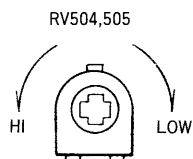
• High speed adjustment

1. Short pin CN407. Then at HIGH speed mode.
2. Adjust RV504 so that the frequency counter reads 6000 ± 20 Hz.
(Must be first Adjustment B deck)

• NORMAL speed adjustment

1. Remove the short pin from CN407. Then at NORMAL speed mode.
2. Adjust RV505 so that the frequency counter reads 3000 ± 10 Hz.

Adjustment Location: TC MAIN board

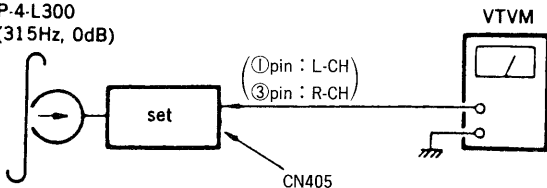


Playback Level Adjustment

Procedure :

Mode : FWD playback

test tape
P-4-L300
(315Hz, 0dB)



DECK-A side RV400(L-CH), RV500(R-CH)

DECK-B side RV401(L-CH), RV501(R-CH)

so that the limits below are satisfied.

Adjustable limits :

CN405 level: $461.6 - 411.4$ mV ($-4.5 - -5.5$ dB)

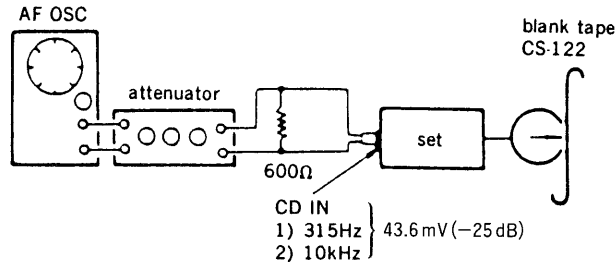
level difference between the channels: within 1.0dB

(See page 6 for Adjustment Location)

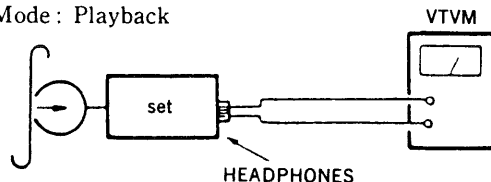
Record BIAS Current Adjustment

Procedure :

1. Mode : record



2. Mode : Playback



- (1) Supply a 43.6 mV (-25 dB) signal (315Hz) from the CD IN. Adjust the VOLUME control so that a 24.5 mV (-30 dB) signal is output to the headphones terminal.
- (2) Insert alignment tape CS-122 into deck B and put the set into the REC mode.
- (3) Adjust the signal frequency to 10kHz.
- (4) Put the set into the PB mode and adjust RV403(L CH) and RV503(R CH) in the REC mode so that the level difference between 315Hz and 10kHz is within 0 ± 0.5 dB.
- (5) Repeatedly put the set into the REC and PB modes two to four times and adjust the bias.

Adjustable limits :

The HEADPHONES level of 10kHz signal relative to that of 315Hz : 0 dB ± 0.5 dB

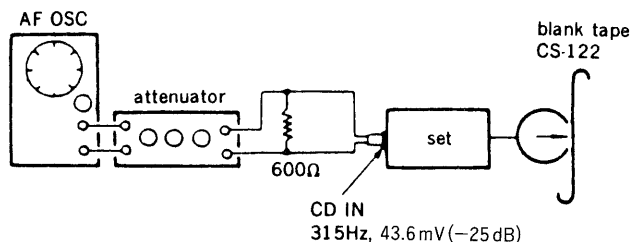
Record Level Adjustment

Setting :

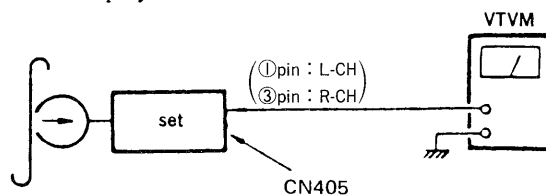
TAPE SELECT : TYPE I

Procedure :

1. Mode : record



2. Mode : playback



- (1) Supply a 43.6mV (−25dB) signal (315Hz) from the CD terminal.
- (2) Insert alignment tape CS-122 into deck B and record the signal. Then playback the recorded portion of the tape and adjust RV 402 (L-CH) and RV 502 (R-CH) so that the 43.6mV (−25dB) signal output is obtained at CN 405 terminal.

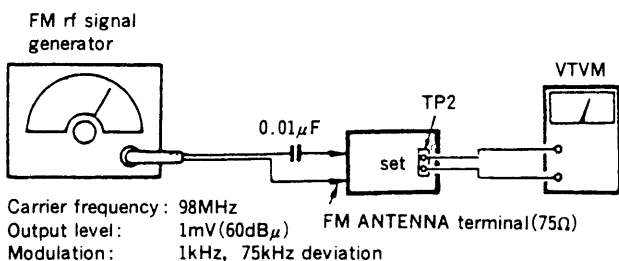
Adjustable limits :

CN 405 level : 46.2 — 41.1mV (−24.5 — −25.5dB)

TUNER SECTION

As FM FRONT-END FE301 is difficult to repair if faulty, replace it with new one.

FM NULL Adjustment

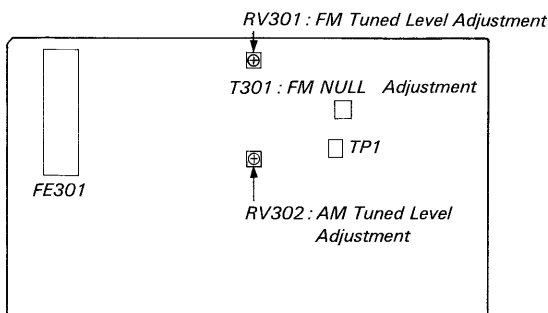


Procedure :

1. Tune the set to 98 MHz.
2. Adjust T301 for 0V reading on the VTVM.

Adjustment Location :

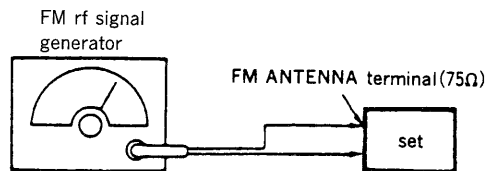
MAIN BOARD (Component side)



FM Tuned Level Adjustment

Setting:

STEREO/MUTE : OFF

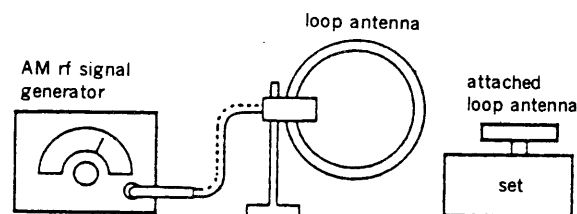


Carrier frequency : 98MHz
Output level : 0.018mV (25dBμ)
Modulation : 1kHz, 75kHz deviation

Procedure :

1. Tune the set to 98 MHz.
2. Adjust RV302 to the point where "TUNED" sign on FL601 just turns light.

• AM SECTION



Carrier frequency : 216kHz
Modulation : 400Hz, 30% modulation

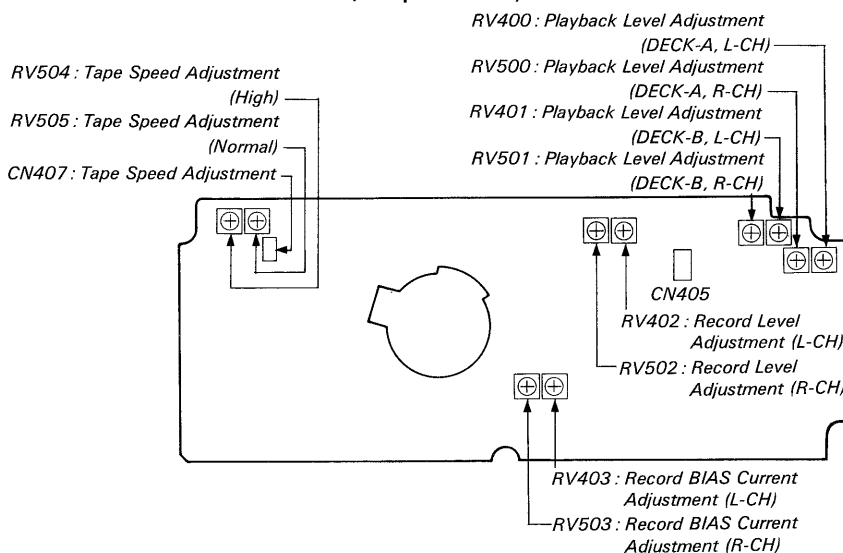
AM Tuned Level Adjustment

• AM BAND

1. Set loop antenna input level to 2.5mV (50 dBμ/m) and no signal tuned light should not on.
2. Tune the set to 1490kHz.
3. Adjust RV301 to the point where "TUNED" sign on FL601 just turns light.

Adjustment Location :

TC MAIN BOARD (Component side)



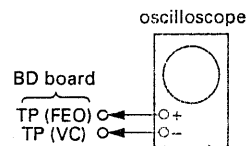
3-3. ELECTRICAL BLOCK CHECKING

CD SECTION

Note :

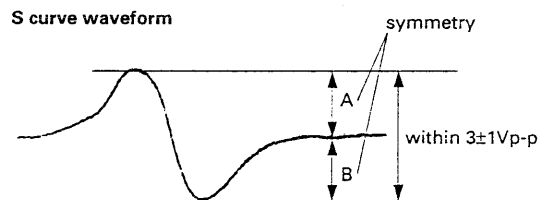
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than 10MΩ impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S Curve Check



Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within $3\pm 1V_{p-p}$.

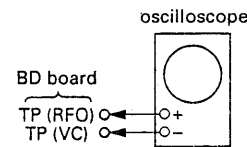


5. After check, remove the lead wire connected in step 2.

Note :

- Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check

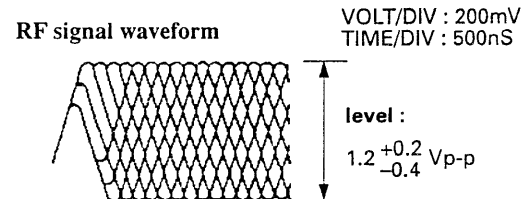


Procedure :

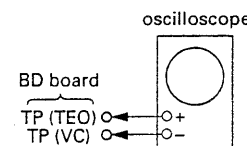
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

Note :

Clear RF signal waveform means that the shape “◇” can be clearly distinguished at the center of the waveform.



E-F Balance Check



Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

Traverse oscilloscope

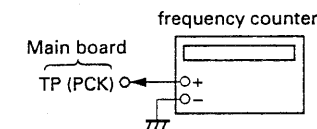


6. Remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

1. Connect frequency counter to test point (PCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is 4.3218MHz.

Focus/Tracking Gain

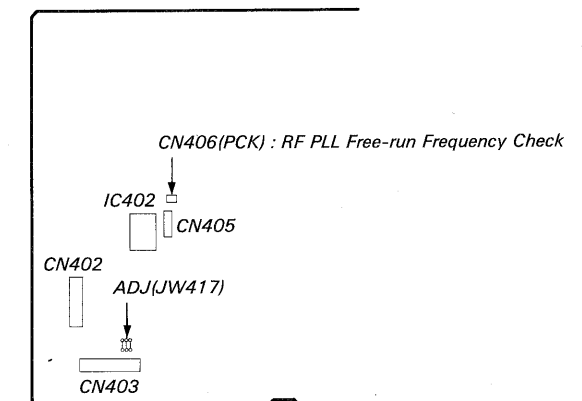
This gain has a margin, so even if it is slightly off.

There is no problem.

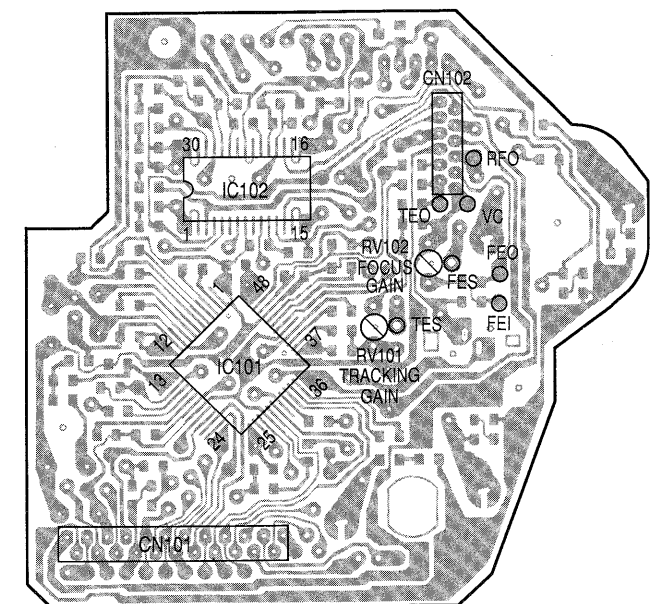
Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

[MAIN BOARD] – Component Side –



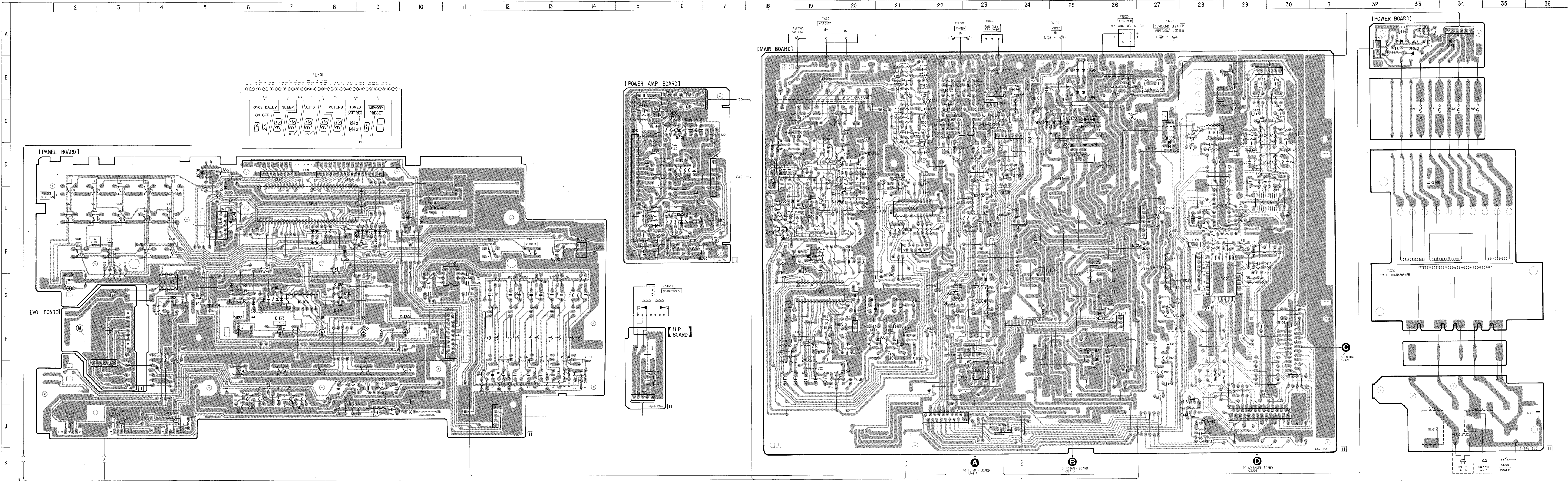
[BD BOARD] – Conductor Side –



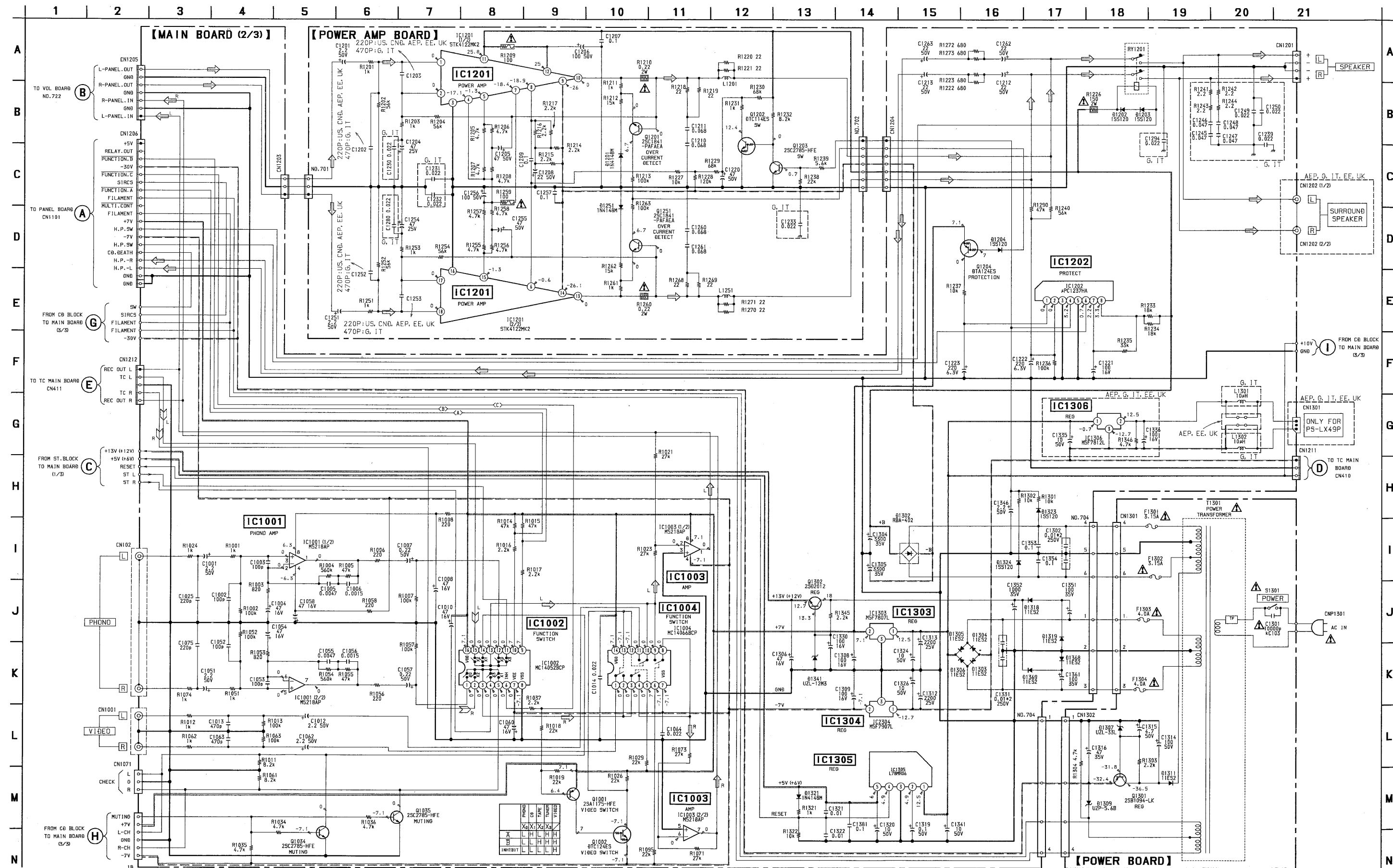
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D351	E-18	IC301	G-19	Q522	C-22
D601	D-5	IC401	C-28	Q531	D-22
D602	E-10	IC402	G-28	Q532	C-22
D603	D-5	IC404	E-30	Q601	D-5
D604	E-10	IC406	D-30	Q602	F-13
D611	F-8	IC407	C-30	Q1001	G-22
D612	F-8	IC501	E-21	Q1002	G-22
D613	F-8	IC601	E-8	Q1034	D-24
D614	F-8	IC602	F-14	Q1035	E-23
D618	G-5	IC1001	C-23	Q1101	I-6
D621	F-9	IC1002	E-23	Q1102	H-4
D624	F-9	IC1003	I-23	Q1121	G-8
D625	F-9	IC1004	G-23	Q1122	G-6
D636	F-9	IC1101	I-9	Q1136	G-8
D641	E-6	IC1102	F-11	Q1138	G-8
D1130	H-10	IC1103	G-4	Q1139	H-9
D1131	H-8	IC1104	G-7	Q1141	G-5
D1132	H-6	IC1201	C-15	Q1143	G-6
D1133	H-7	IC1202	F-27	Q1144	G-6
D1134	H-9	IC1303	H-26	Q1145	G-6
D1145	G-2	IC1304	G-25	Q1151	I-7
D1151	G-7	IC1305	F-25	Q1152	G-4
D1152	G-7	IC1306	C-24	Q1201	C-16
D1153	G-6			Q1202	F-16
D1201	C-16	Q301	D-20	Q1203	F-16
D1202	D-27	Q302	D-20	Q1204	H-27
D1203	C-27	Q303	E-20	Q1251	F-16
D1204	F-27	Q304	E-20	Q1301	A-33
D1251	E-16	Q305	I-20	Q1302	H-25
D1302	C-26	Q306	I-20	Q1303	C-25
D1303	C-25	Q307	H-21	Q1304	C-24
D1304	C-24	Q308	H-21		
D1305	C-25	Q309	H-21		
D1306	C-25	Q351	D-19		
D1307	A-33	Q352	C-19		
D1309	A-33	Q353	D-19		
D1311	A-34	Q354	E-19		
D1318	B-25	Q355	E-18		
D1319	B-25	Q356	E-19		
D1321	H-26	Q413	J-28		
D1323	D-25	Q414	J-28		
D1324	D-25	Q415	J-28		
D1341	H-26	Q501	F-18		
D1368	B-25	Q502	F-18		
D1369	B-25	Q521	C-22		

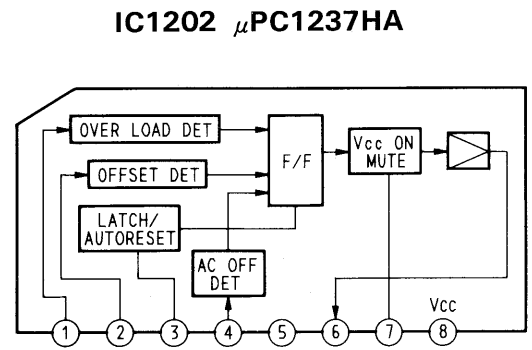
Note:
• : parts extracted from the component side.
CND: Canadian
G: Germany
IT: Italian
EE: East European







4-2. SCHEMATIC DIAGRAMS –AUDIO Section–






- **IC Block Diagrams**








Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50VW or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
-  : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : printed resistor.

Note:
The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

Note:
Les composants identifiés par une marque  sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

-  : B+ Line
-  : B- Line
-  : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input Impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : FM  : PB (DECK A)

CND: Canadian

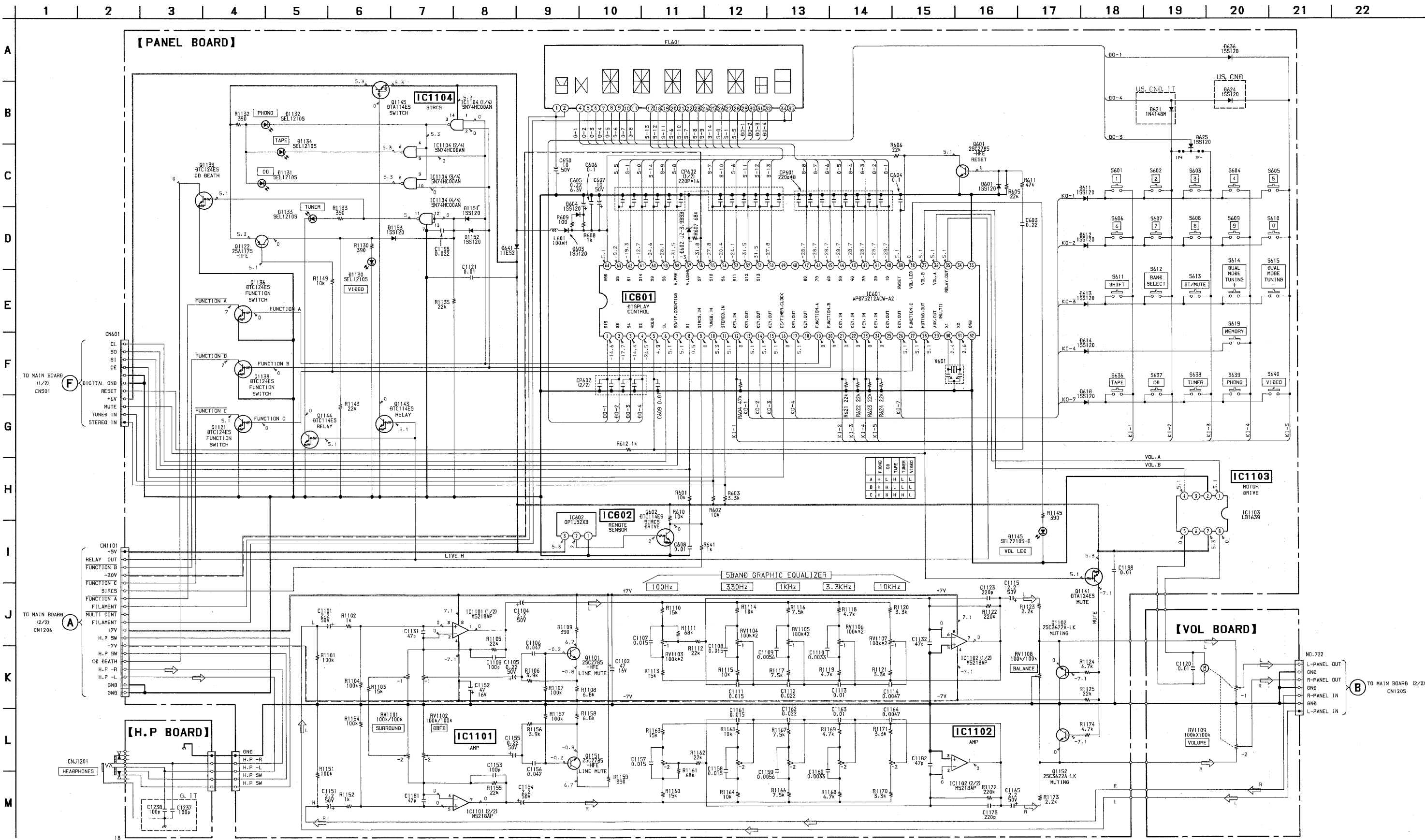
G: Germany

IT: Italian

EE : East European

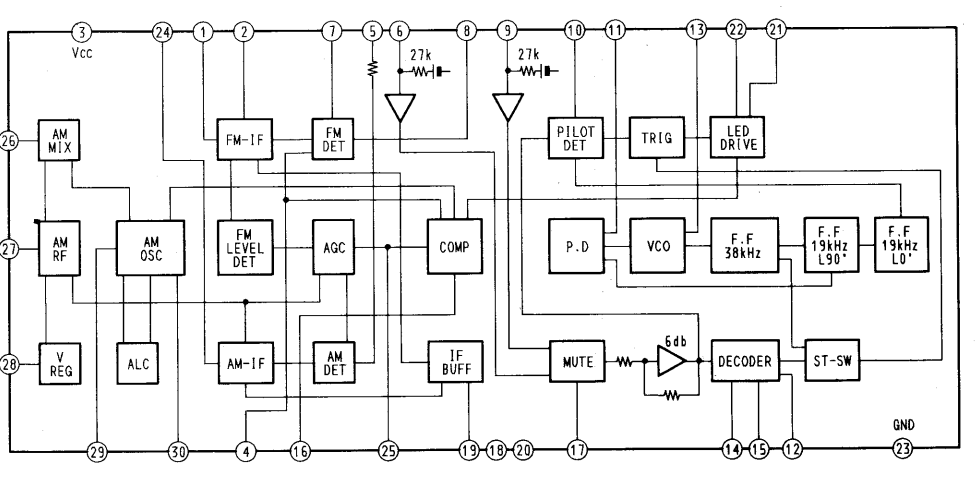
4-3. SCHEMATIC DIAGRAMS -PANEL Section-

• See page 17 for note.

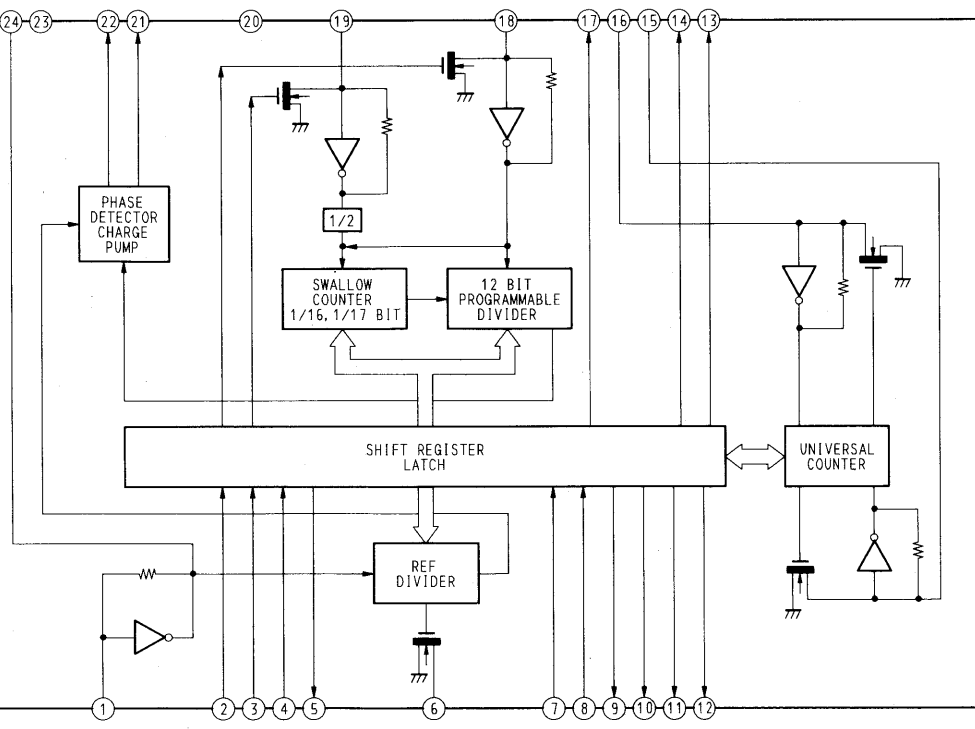


• IC Block Diagrams

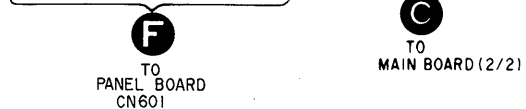
IC301 LA1851N



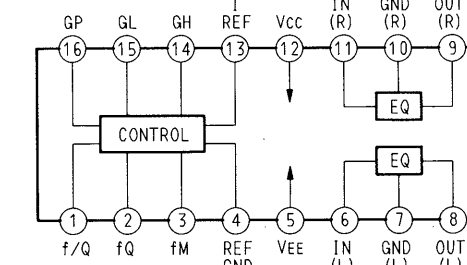
IC501 LC7218



• See page 17 for note.



• See page 17 for note.

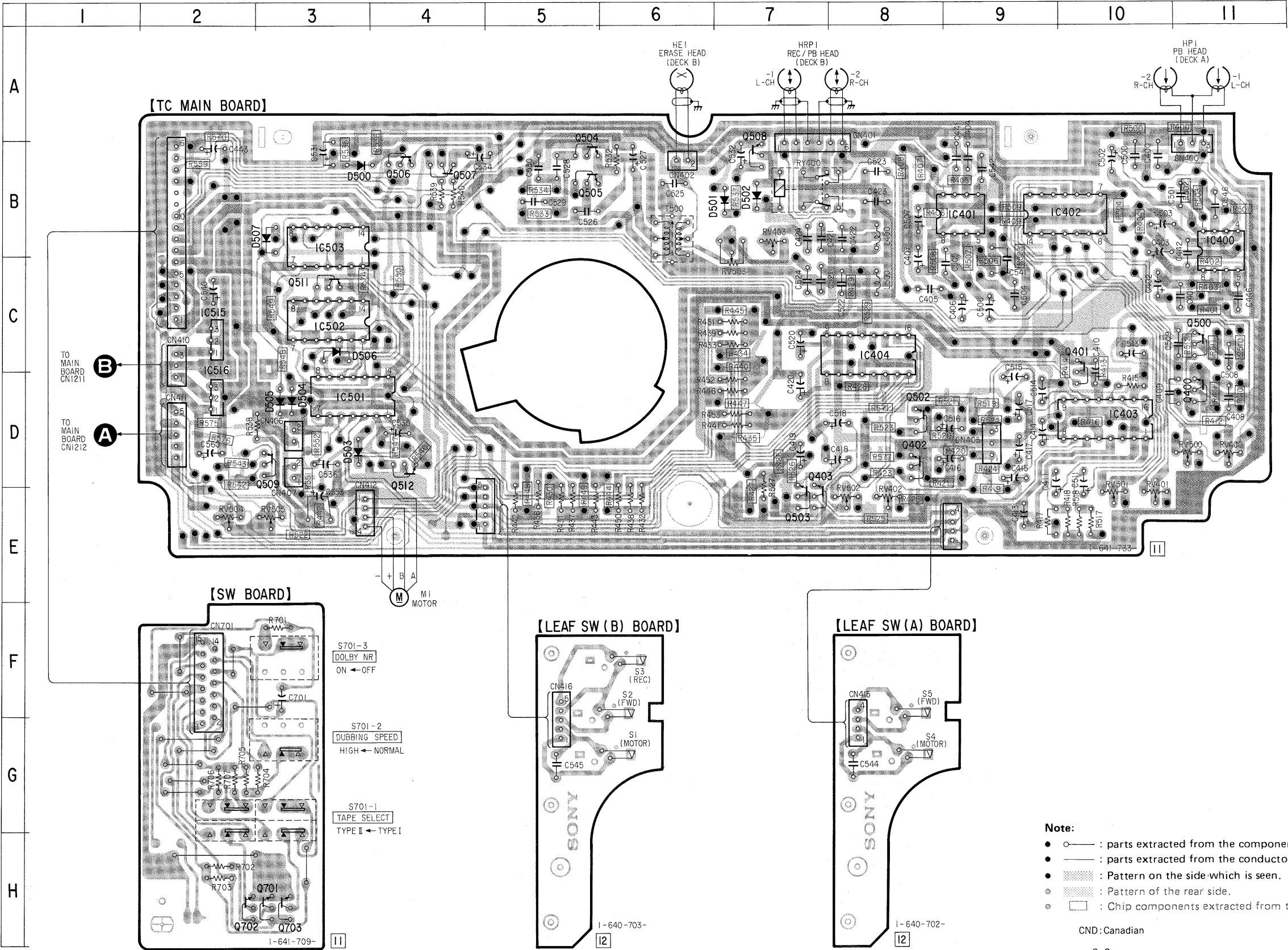


4-6. PRINTED WIRING BOARDS -TC Section-

• See page 34 for circuit boards location and semiconductor lead layouts.

● Semiconductor Location

Ref. No.	Location
D500	B-3
D501	B-7
D502	B-7
D503	D-3
D504	D-3
D505	D-3
D506	C-3
D507	B-3
IC400	B-11
IC401	B-9
IC402	B-10
IC403	D-10
IC404	C-8
IC501	D-3
IC502	C-3
IC503	B-3
IC515	C-2
IC516	D-2
Q400	D-11
Q401	C-10
Q402	D-8
Q403	E-7
Q500	C-11
Q502	D-8
Q503	E-7
Q504	B-5
Q505	B-5
Q506	B-4
Q507	B-4
Q508	B-8
Q509	D-3
Q511	C-3
Q512	D-4
Q701	H-3
Q702	H-2
Q703	H-3



Note:

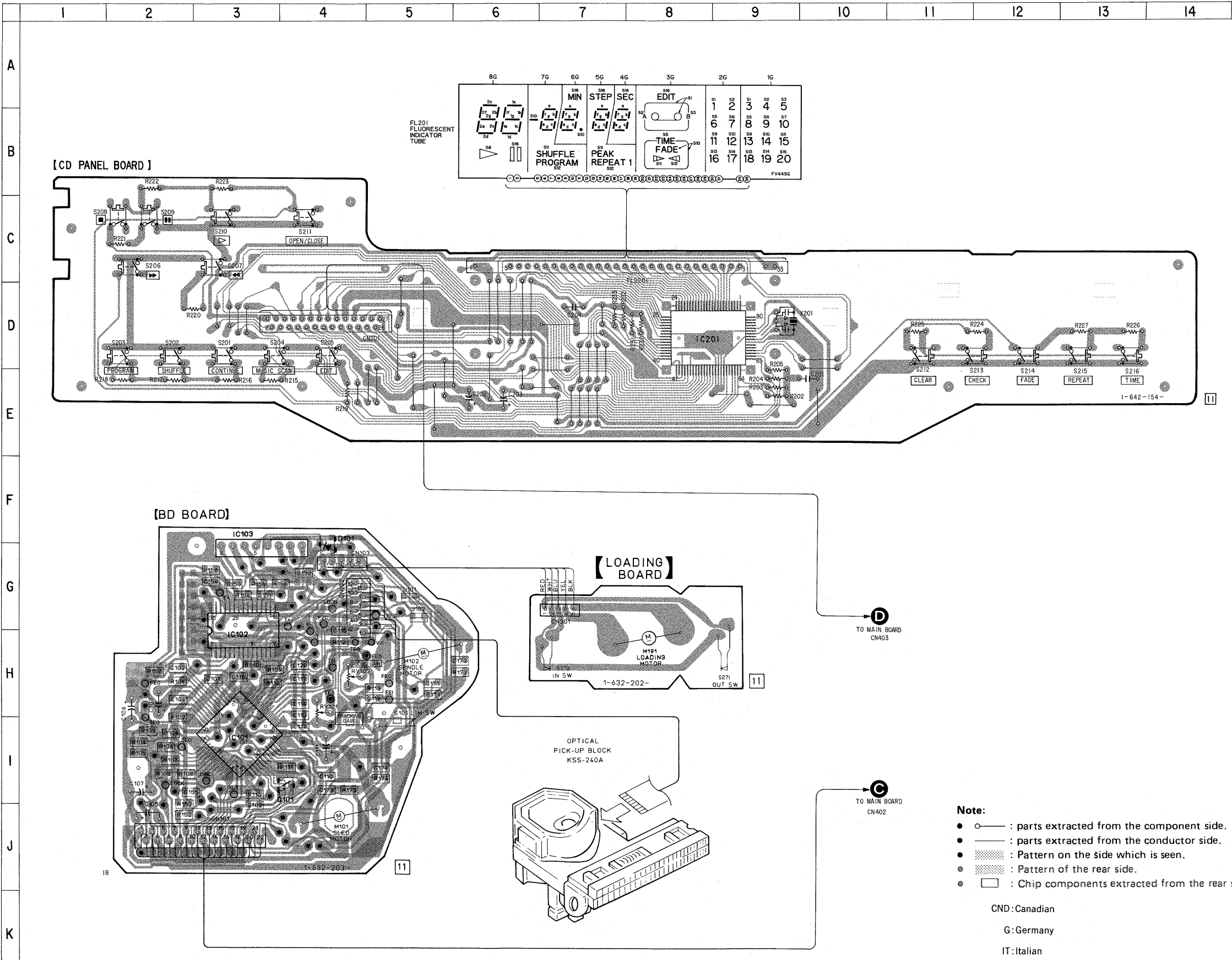
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- ▨ : Pattern on the side which is seen.
- ⊙ : Pattern of the rear side.
- : Chip components extracted from the rear side.

CND: Canadian
G: Germany
IT: Italian
EE: East European

4-7. PRINTED WIRING BOARDS -CD Section-
• See page 34 for circuit boards location and semiconductor lead layouts.

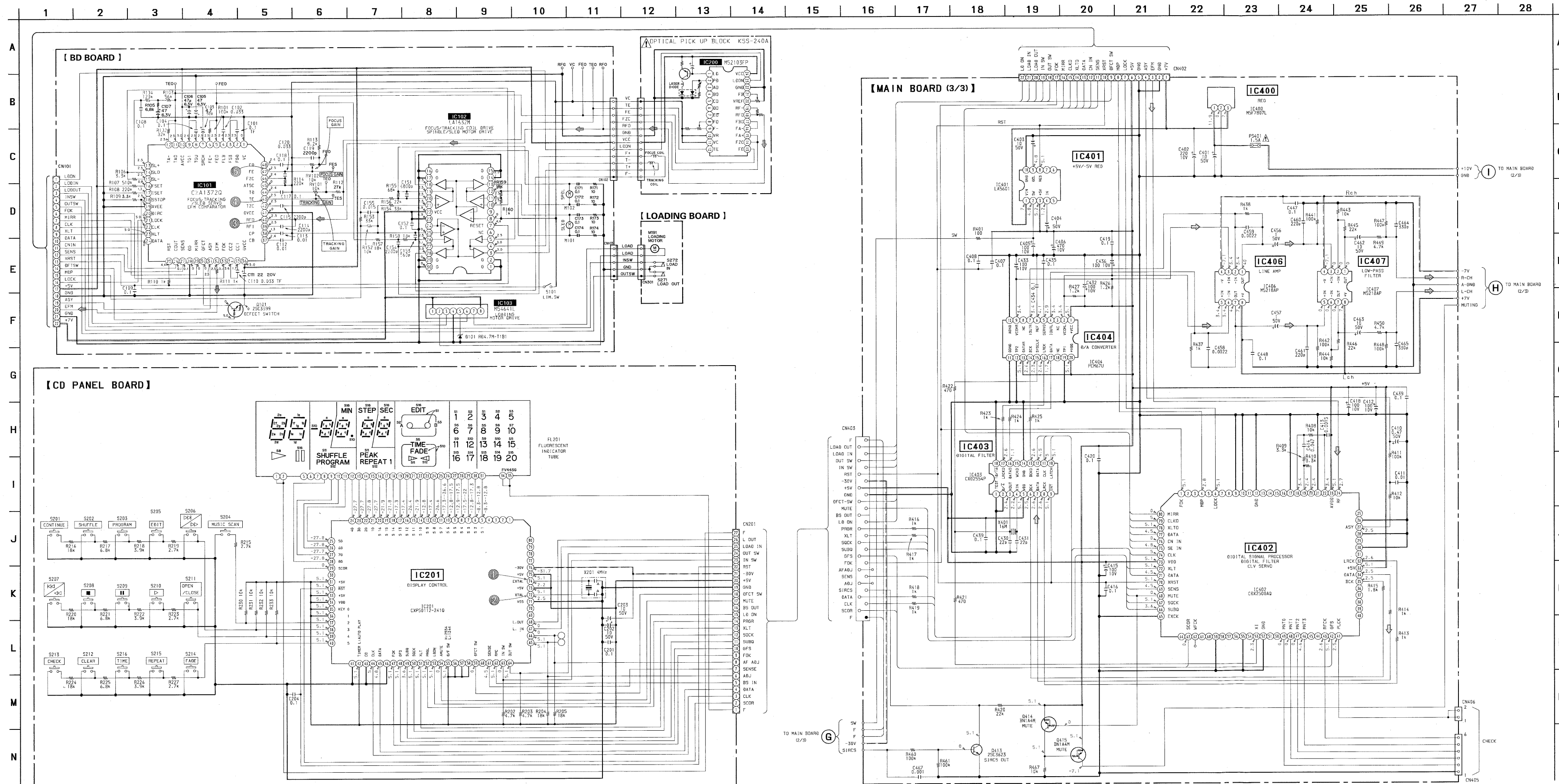
● Semiconductor Location

Ref. No.	Location
D101	F-4
IC101	I-3
IC102	H-3
IC103	F-3
IC201	D-8
Q101	I-4

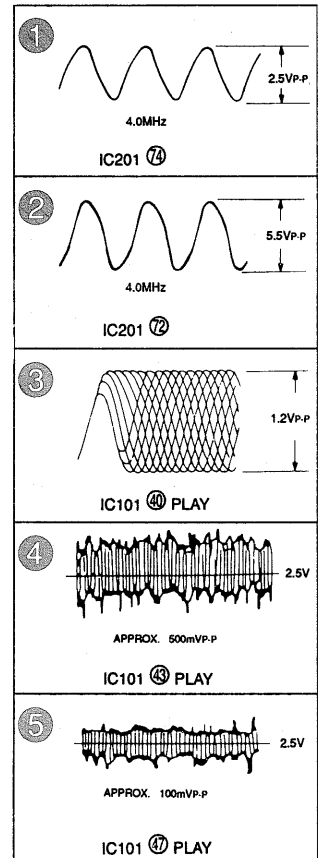


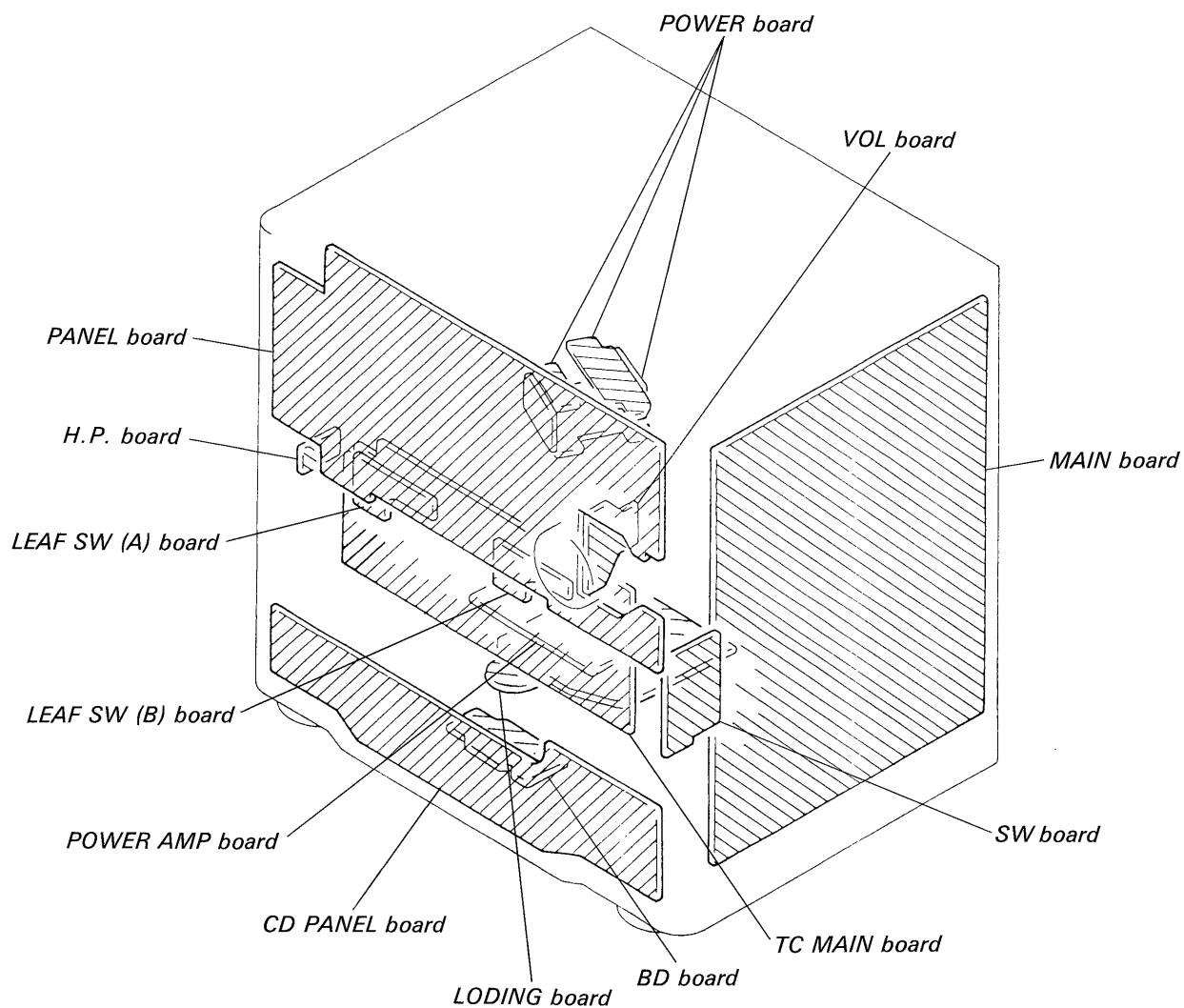
4-8. SCHEMATIC DIAGRAMS -CD Section-

• See page 17 for note.



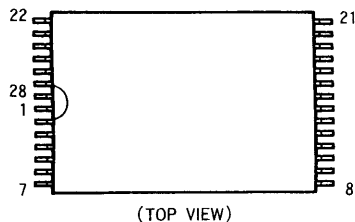
• Waveforms



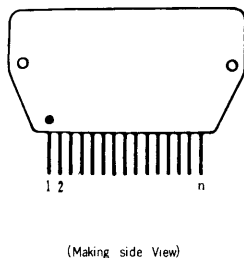
4-9. CIRCUIT BOARDS LOCATION

4-10. SEMICONDUCTOR LEAD LAYOUTS

CXA1372AQ



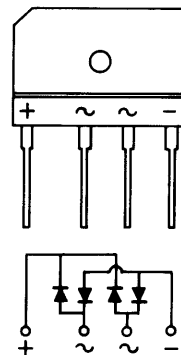
STK4122MK2



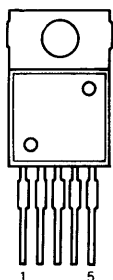
2SC2669-OY
2SC3623A-LK
DTA114ES
DTA124ES
DTA144ES
DTC114ES
DTC124ES
DTC144ES



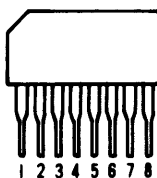
PBA-402



L78MR06



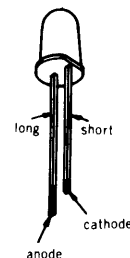
μPC1237HA



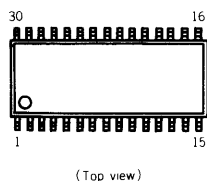
2SC3112-B
2SC3623A-LK
2SC945-P



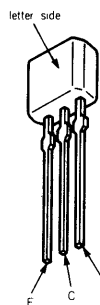
SEL1210S



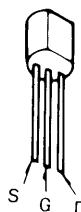
LA6532M



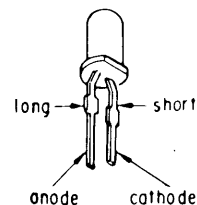
2SA1175-HFE
2SC2785-HFE



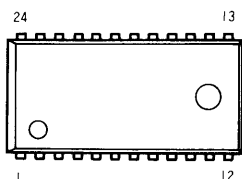
2SK246-GR3



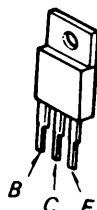
SEL2210S-D



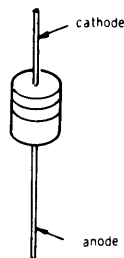
LC7218



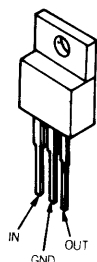
2SB1094-LK
2SC1815-Y
2SD2012



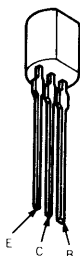
11ES2
1SS120
UZ-3.9BSB
UZL-12M3
UZL-33L
UZP-5.6B



M5F7807L
M5F7812L
M5F7907L



2SC1841-PAFAEA



SECTION 5 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.

- Color Indication of Appearance Parts

Example:

KNOB, BALANCE(WHITE)...(RED)

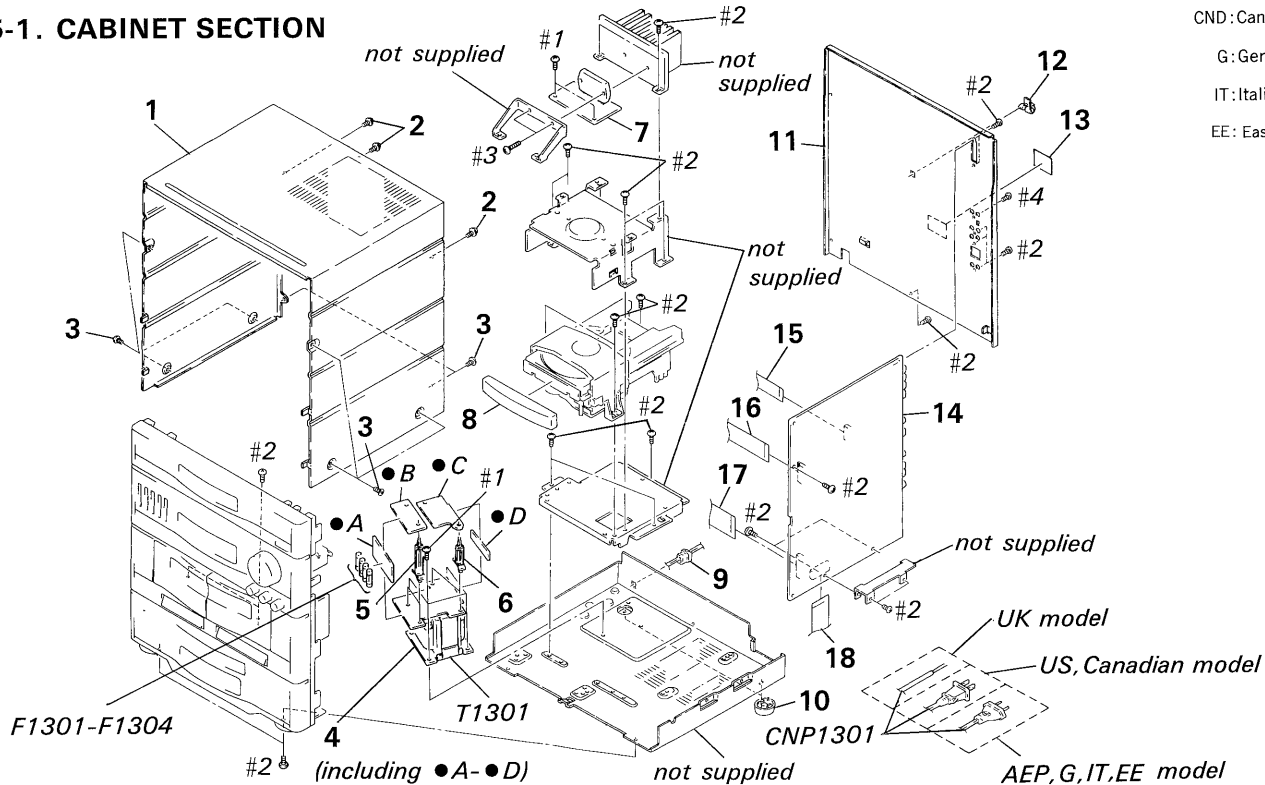
↑ ↑
Parts color Cabinet's color

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- hardware (#mark) list is given in the last of this parts list.

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CABINET SECTION



CND: Canadian

G: Germany

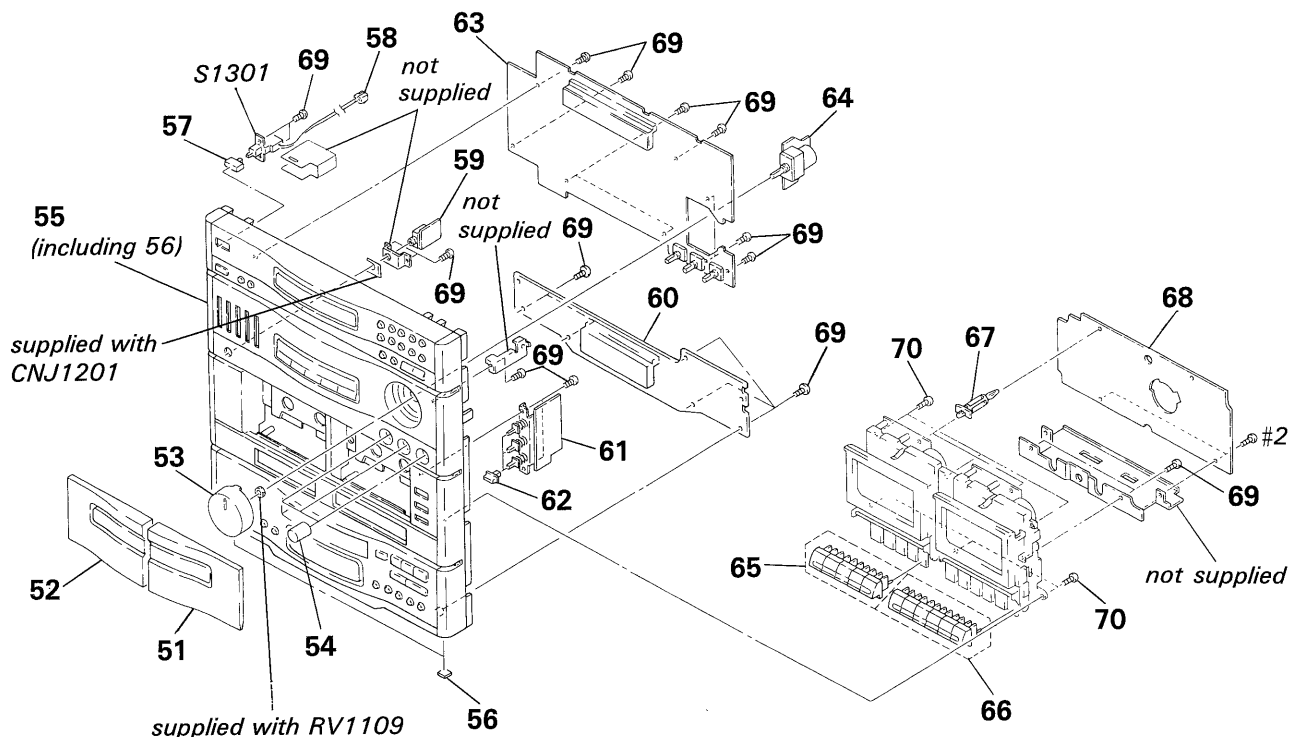
IT: Italian

EE: East European

Ref. No.	Part No.	Description	Remark
* 1	4-943-170-32	CASE (CND, AEP, G, EE, UK)	
* 1	4-943-170-62	CASE (US, IT)	
2	4-929-973-01	SCREW (CASE, 3 POINT)	
3	3-363-099-01	SCREW (CASE +3X8 TP2)	
* 4	1-642-220-11	POWER BOARD	
* 5	4-924-098-81	HOLDER, PC BOARD (AEP, G, IT, EE, UK)	
* 5	4-943-687-21	HOLDER, PC BOARD (US, CND)	
* 6	4-924-098-31	HOLDER, PC BOARD (AEP, G, IT, EE, UK)	
* 6	4-943-687-11	HOLDER, PC BOARD (US, CND)	
* 7	A-4347-068-A	POWER AMP BOARD, COMPLETE (AEP, EE, UK)	
* 7	A-4347-366-A	POWER AMP BOARD, COMPLETE (G, IT)	
* 7	A-4347-531-A	POWER AMP BOARD, COMPLETE (US, CND)	
8	4-948-253-01	PANEL, LOADING (CND, AEP, G, EE, UK)	
8	4-948-253-11	PANEL, LOADING (US, IT)	
* 9	3-703-244-00	BUSHING (2104), CORD	
10	X-4941-228-1	FOOT ASSY	
* 11	4-948-285-01	PANEL, BACK (UK)	
* 11	4-948-285-21	PANEL, BACK (US)	
* 11	4-948-285-31	PANEL, BACK (CND)	
* 11	4-948-285-51	PANEL, BACK (AEP)	
* 11	4-948-285-61	PANEL, BACK (IT)	
* 11	4-948-285-81	PANEL, BACK (G)	
* 11	4-948-285-91	PANEL, BACK (EE)	
* 12	4-949-235-01	HOOK	



Ref. No.	Part No.	Description	Remark
* 13	4-941-548-01	LABEL, CLASS 1 (AEP, G, UK, EE, IT)	
* 14	A-4347-065-A	MAIN BOARD, COMPLETE (AEP, UK)	
* 14	A-4347-362-A	MAIN BOARD, COMPLETE (G, IT)	
* 14	A-4347-521-A	MAIN BOARD, COMPLETE (US, CND)	
* 14	A-4347-896-A	MAIN BOARD, COMPLETE- (EE)	
15	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
16	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
17	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
18	1-590-901-11	WIRE, FLAT TYPE (22 CORE)	
	CNP13011-575-651-61	CORD, POWER (AEP, G, IT, EE)	
	CNP13011-575-652-21	CORD, POWER (UK)	
	CNP13011-690-609-11	CORD, POWER (US, CND)	
	F1301	1-532-237-00 FUSE, TIME LAG (T3, 15A) (AEP, G, IT, EE, UK)	
	F1301	1-576-107-11 FUSE (T3, 15A) (US, CND)	
	F1302	1-532-237-00 FUSE, TIME LAG (T3, 15A) (AEP, G, IT, EE, UK)	
	F1302	1-576-107-11 FUSE (T3, 15A) (US, CND)	
	F1303	1-532-350-00 FUSE, TIME LAG (T4, 0A) (AEP, G, IT, EE, UK)	
	F1303	1-576-108-11 FUSE (T4, 0A) (US, CND)	
	F1304	1-532-350-00 FUSE, TIME LAG (T4, 0A) (AEP, G, IT, EE, UK)	
	F1304	1-576-108-11 FUSE (T4, 0A) (US, CND)	
	T1301	1-450-595-11 TRANSFORMER, POWER (AEP, G, IT, EE)	
	T1301	1-450-783-11 TRANSFORMER, POWER (UK)	
	T1301	1-450-817-11 TRANSFORMER, POWER (US)	
	T1301	1-450-818-11 TRANSFORMER, POWER (CND)	


5-2. FRONT PANEL SECTION



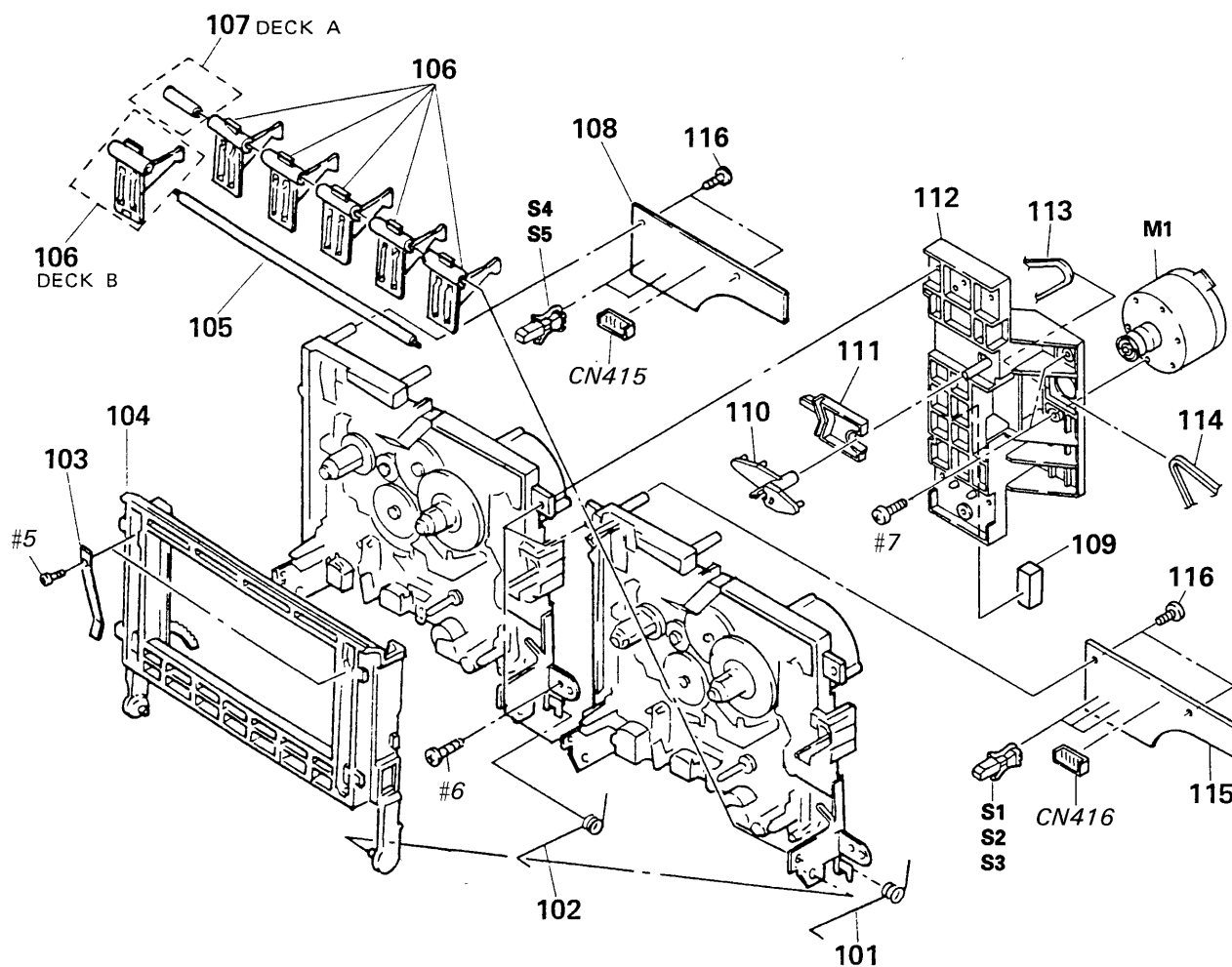
Ref. No.	Part No.	Description	Remark
51	A-4325-347-A	LID (B) ASSY, CASSETTE (CND, AEP, G, EE, UK)	
51	A-4325-423-A	LID (B) ASSY, CASSETTE (US, IT)	
52	A-4325-346-A	LID (A) ASSY, CASSETTE (CND, AEP, G, EE, UK)	
52	A-4325-422-A	LID (A) ASSY, CASSETTE (US, IT)	
53	A-4323-382-A	KNOB (VO) ASSY	
54	4-948-270-01	KNOB (DSB)	
55	A-4325-407-A	PANEL ASSY, FRONT (AEP, G, EE, UK)	
55	A-4325-519-A	PANEL ASSY, FRONT (IT)	
55	A-4325-548-A	PANEL ASSY, FRONT (CND)	
55	A-4325-558-A	PANEL ASSY, FRONT (US)	
56	4-948-236-01	CUSHION (107)	
57	4-930-783-11	BUTTON (PO)	
58	1-690-708-11	CORD (WITH CONNECTOR)	
* 59	1-641-707-11	H. P. BOARD	
* 60	A-4347-069-A	CD PANEL BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 61	1-641-709-11	SW BOARD	
62	4-948-257-01	BUTTON (DDT)	
* 63	A-4347-061-A	PANEL BOARD, COMPLETE (AEP, G, UK)	
* 63	A-4347-360-A	PANEL BOARD, COMPLETE (IT)	
* 63	A-4347-519-A	PANEL BOARD, COMPLETE (US, CND)	
* 63	A-4347-894-A	PANEL BOARD, COMPLETE (EE)	
* 64	1-641-706-11	VOL BOARD	
65	4-948-258-01	BUTTON (MD-A)	
66	4-948-259-01	BUTTON (MD-B)	
* 67	4-924-098-31	HOLDER, PC BOARD	
* 68	A-4345-901-A	TC MAIN BOARD, COMPLETE (US, AEP, G, IT, EE, UK)	
* 68	A-4347-525-A	TC MAIN BOARD, COMPLETE (CND)	
69	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
70	4-928-635-21	SCREW, +BV (2.6X10) TAPPING	
△ S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

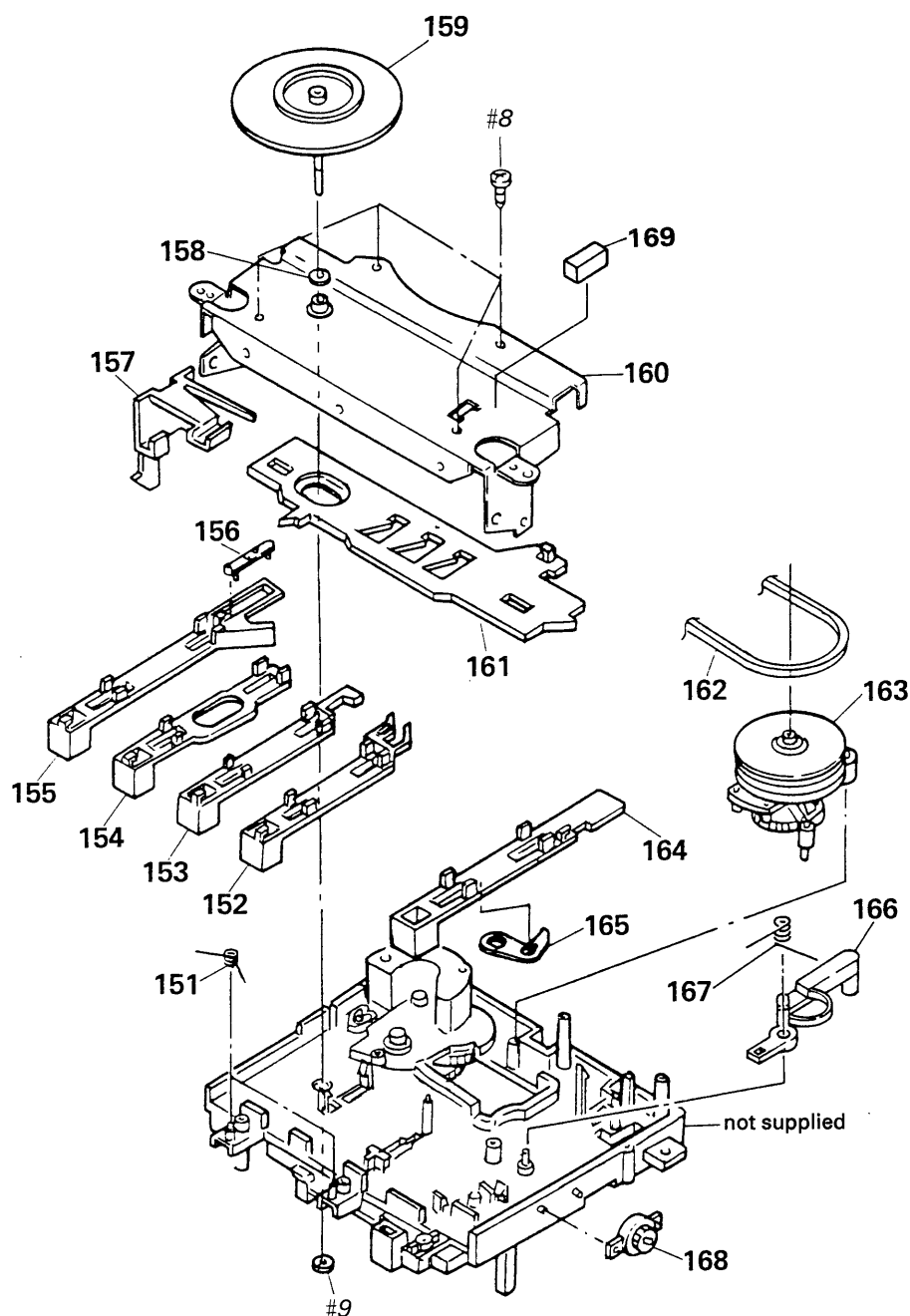
5-3. MECHANISM DECK SECTION-1 (TCM-180VW-H7)



Ref.No.	Part No.	Description	Remark
101	3-358-287-01	SPRING (LOADING A), TORSION	
102	3-358-229-01	SPRING (LOADING), TORSION	
103	3-358-209-01	SPRING (CASSETTE HOLDER), LEAF	
104	3-358-266-02	HOLDER, CASSETTE	
105	3-371-917-01	SHAFT (BUTTON SHAFT 4)	
106	3-369-335-01	LEVER (BUTTON BASE F)	
* 107	3-358-216-01	COLLAR (DECK A)	
* 108	1-640-702-12	LEAF SW (A) BOARD	
* 109	3-358-289-01	SPACER (VIBRATION PROOF MAT)	
110	3-358-203-01	LEVER (TRIGGER)	
111	3-358-202-01	SLIDER (TRIGGER)	
* 112	3-363-930-01	BRACKET (JOINT BASE)	

Ref.No.	Part No.	Description	Remark
113	3-358-230-01	BELT (A1)	
114	3-364-777-01	BELT (WH)	
* 115	1-640-703-12	LEAF SW (B) BOARD	
116	4-928-635-01	SCREW +BV (2.6X8) TAPPING	
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
M1	X-3362-377-1	MOTOR (WH) ASSY	
S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
S2	1-571-736-11	SWITCH, LEAF (FWD)	
S3	1-571-736-11	SWITCH, LEAF (REC)	
S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
S5	1-571-736-11	SWITCH, LEAF (FWD)	

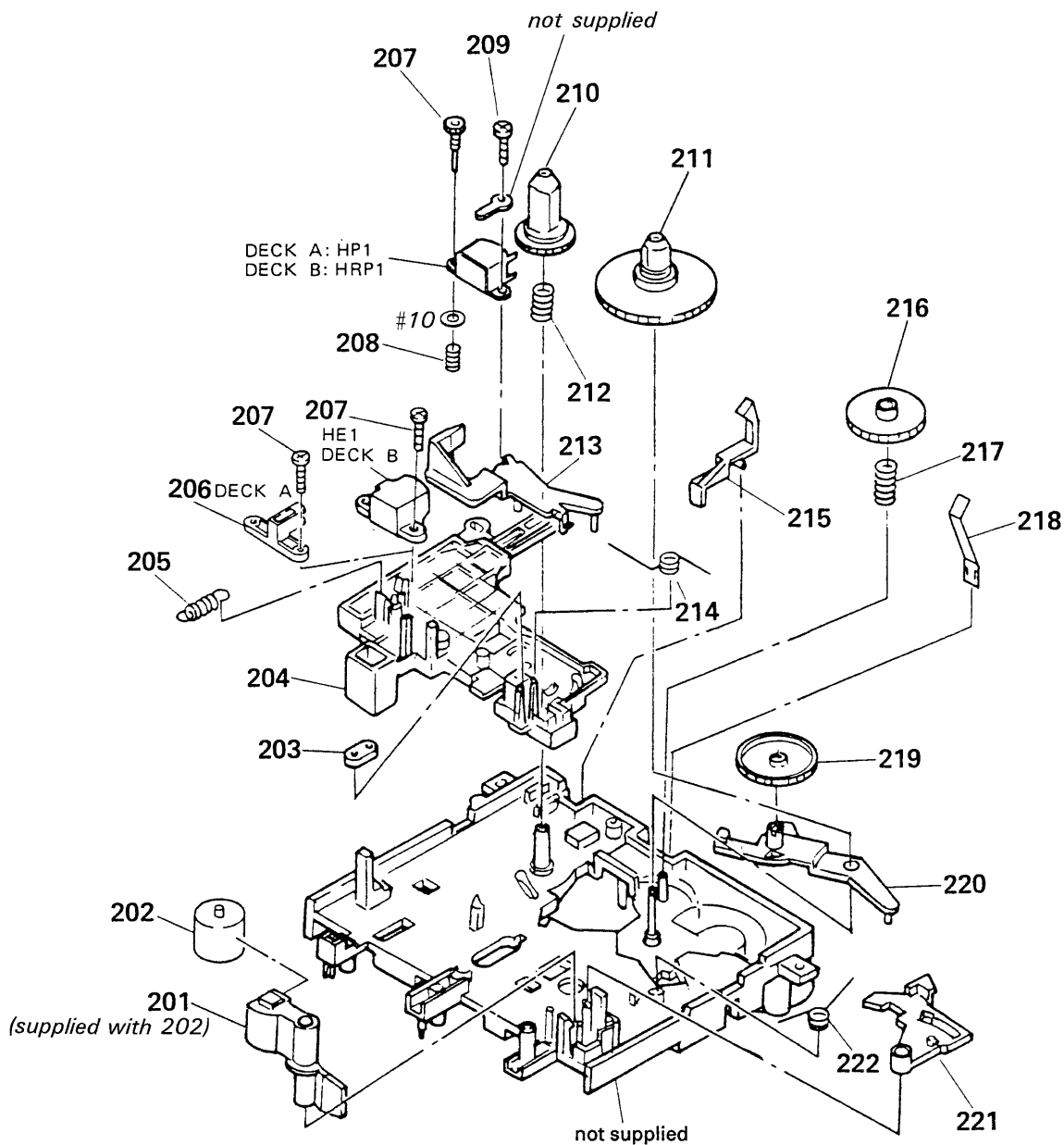
5-4. MECHANISM DECK SECTION-2 (TCM-180VW-H7)



Ref. No.	Part No.	Description	Remark
151	3-358-232-01	SPRING (S-P F-R), TORSION	
152	3-358-258-01	SLIDER (REW)	
153	3-358-257-01	SLIDER (FF)	
154	3-358-256-01	SLIDER (STOP/EJECT)	
155	3-358-260-01	SLIDER (PAUSE)	
* 156	3-358-226-01	LEVER (PAUSE LEVER)	
* 157	3-358-261-02	SLIDER (HOLDER LOCK)	
158	3-701-437-01	WASHER	
159	X-3358-205-1	FLYWHEEL (A) ASSY (DECK A)	
159	X-3358-206-1	FLYWHEEL (B) ASSY (DECK B)	
* 160	X-3358-208-1	BRACKET (B) ASSY	

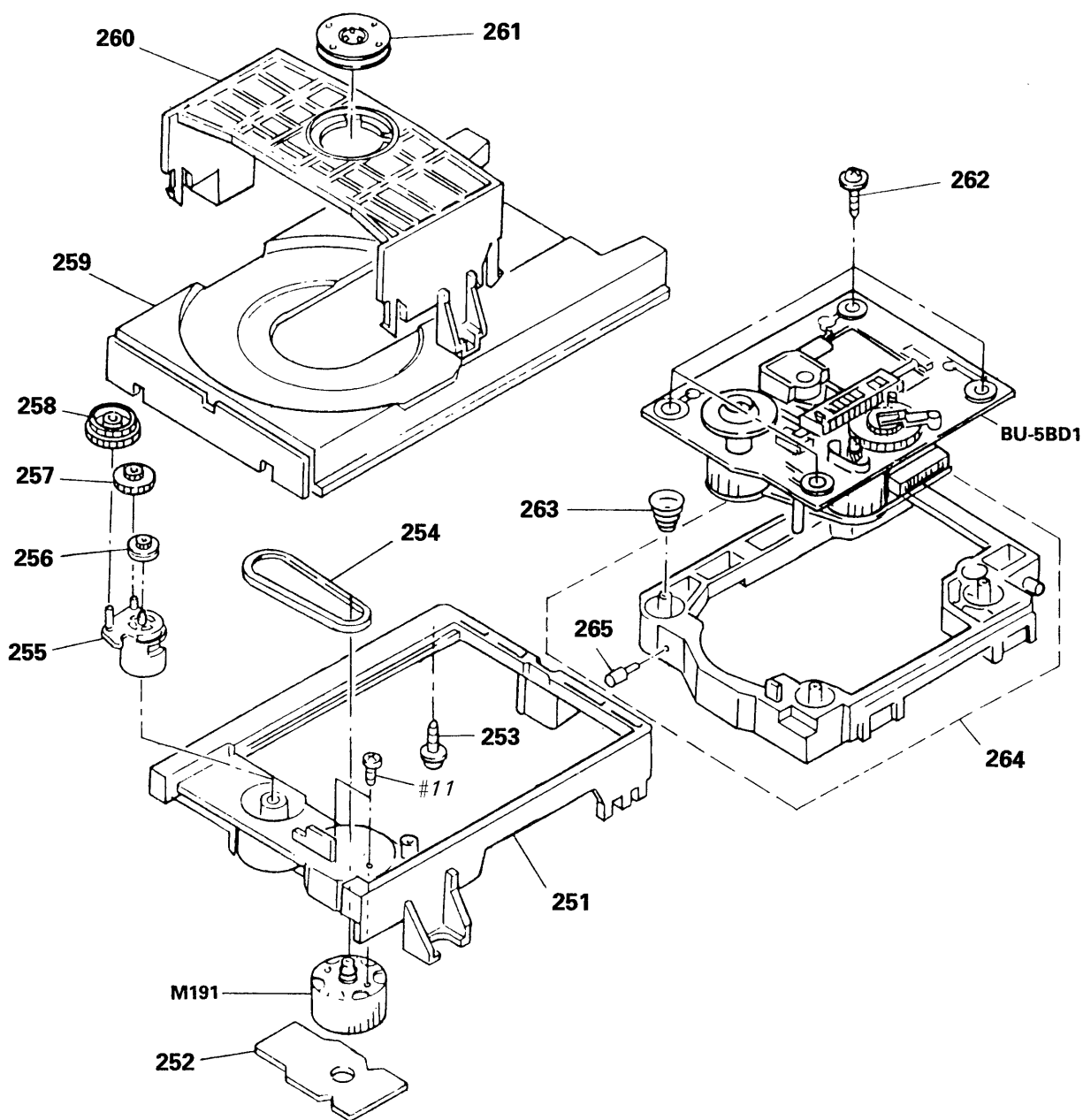
Ref. No.	Part No.	Description	Remark
* 161	3-358-249-01	SLIDER (LOCK PLATE)	
162	3-358-230-01	BELT (A1)	
163	X-3358-202-1	LEVER (FR ARM) ASSY	
164	3-358-259-01	SLIDER (REC) (DECK B)	
* 165	3-358-204-01	LEVER (REC SAFETY) (DECK B)	
166	3-358-286-01	LEVER (MOTOR LEVER)	
167	3-358-214-01	SPRING (LOCK), TORSION (DECK A)	
167	3-358-233-01	SPRING (REC-LOCK), TORSION (DECK B)	
168	3-319-224-41	DAMPER, SMALL	
* 169	3-358-289-01	SPACER (VIBRATION PROOF MAT)	

5-5. MECHANISM DECK SECTION-3 (TCM-180VW-H7)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	X-3358-204-1	LEVER (PINCH LEVER) ASSY		214	3-358-228-01	SPRING, TORSION	
202	3-578-143-11	PINCH ROLLER		* 215	3-358-255-01	LEVER (GB LEVER)	
* 203	3-358-215-01	BUSHING (WIRE KIT RETAINER)		* 216	3-358-224-01	GEAR (FF GEAR)	
204	3-358-265-01	SLIDER (HEAD PC BOARD A)		217	3-358-207-01	SPRING (FF GEAR), COMPRESSION	
205	3-358-217-01	SPRING, TENSION		218	3-358-227-01	SPRING, LEAF	
* 206	3-363-931-01	GUIDE, TAPE (DECK A)		* 219	3-358-284-01	GEAR (TU GEAR)	
207	3-358-288-11	SCREW (T), AZIMUTH		* 220	3-358-252-01	LEVER (TU ARM)	
208	3-358-234-01	SPRING (AZIMUTH), COMPRESSION		* 221	3-358-253-01	LEVER (SHUT-OFF LEVER)	
209	3-358-288-01	SCREW (T), AZIMUTH		222	3-358-243-01	SPRING (TU-SHUT), TORSION	
210	3-358-248-01	GEAR (SUPPLY REEL)		HE1	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
211	X-3358-203-1	TABLE (T) ASSY, REEL		HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	
212	3-358-208-01	SPRING (SUPPLY), COMPRESSION		HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
* 213	3-358-251-01	LEVER (TENSION DETECTION ARM)					

5-6. CD MECHANISM SECTION



Ref. No.	Part No.	Description	Remark
251	4-933-111-01	CHASSIS (MD)	
252	* 1-632-202-11	LOADING BOARD	
253	* 4-917-583-21	BRACKET, YOKE	
254	4-927-649-01	BELT	
255	4-933-109-01	CAM	
256	4-927-651-01	PULLEY (S)	
257	4-927-628-01	GEAR (C)	
258	4-933-107-01	GEAR (PL)	

Ref. No.	Part No.	Description	Remark
259	4-949-336-01	TABLE, DISK	
260	4-933-110-01	HOLDER (MG)	
261	* 1-452-538-11	MAGNET	
262	4-933-134-01	SCREW (+PTPWH M2.6X6)	
263	4-917-541-01	SPRING (B)	
264	4-933-129-04	HOLDER (BU)	
265	4-933-108-01	SHAFT (CAM)	
M191	A-4604-363-A	MOTOR (L) ASSY	

SECTION 6

ELECTRICAL PARTS LIST

BD

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
uF: μ F
- COILS
uH: μ H

When indication parts by reference number, please include the board name.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

CND: Canadian

G: Germany

IT: Italian

EE: East European

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4617-161-A	BD BOARD, COMPLETE				< CONNECTOR >	

		< CAPACITOR >					
C101	1-163-038-00	CERAMIC	0.1uF 25V	CN101	1-568-796-11	SOCKET, CONNECTOR 22P	
C102	1-163-989-11	CERAMIC	0.033uF 10% 25V	CN102	1-568-795-11	SOCKET, CONNECTOR 12P	
C103	1-126-163-11	ELECT	4.7uF 20% 50V	CN103	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P	
C104	1-163-038-00	CERAMIC	0.1uF 25V			< DIODE >	
C105	1-126-154-11	ELECT	47uF 20% 6.3V	D101	8-719-021-25	DIODE UZM4.7X	
						< IC >	
C106	1-126-154-11	ELECT	47uF 20% 6.3V	IC101	8-752-053-73	IC CXA1372AQ	
C107	1-126-154-11	ELECT	47uF 20% 6.3V	IC102	8-759-822-36	IC LA6532M	
C108	1-163-038-00	CERAMIC	0.1uF 25V	IC103	8-759-633-65	IC M54641L	
C109	1-163-038-00	CERAMIC	0.1uF 25V			< JACK >	
C110	1-163-989-11	CERAMIC	0.033uF 10% 25V	J101	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C111	1-131-367-00	TANTALUM	22uF 20% 20V	J102	1-216-295-00	METAL GLAZE 0 5% 1/10W	
C112	1-164-232-11	CERAMIC	0.01uF 10% 50V			< TRANSISTOR >	
C113	1-164-232-11	CERAMIC	0.01uF 10% 50V	Q101	8-729-901-01	TRANSISTOR DTC144EK	
C114	1-164-161-11	CERAMIC	0.0022uF 10% 100V			< RESISTOR >	
C115	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R101	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
C117	1-163-038-00	CERAMIC	0.1uF 25V	R102	1-216-095-00	METAL GLAZE 82K 5% 1/10W	
C118	1-163-038-00	CERAMIC	0.1uF 25V	R103	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
C119	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R104	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
C120	1-163-989-11	CERAMIC	0.033uF 10% 25V	R105	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
C151	1-163-019-00	CERAMIC	0.0068uF 10% 50V	R106	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C152	1-163-038-00	CERAMIC	0.1uF 25V	R107	1-216-114-00	METAL GLAZE 510K 5% 1/10W	
C153	1-163-006-11	CERAMIC	560pF 10% 50V	R108	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
C154	1-164-161-11	CERAMIC	0.0022uF 10% 100V	R109	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
C155	1-163-023-00	CERAMIC	0.015uF 10% 50V	R110	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C171	1-163-038-00	CERAMIC	0.1uF 25V	R111	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
C172	1-163-038-00	CERAMIC	0.1uF 25V				
C173	1-163-038-00	CERAMIC	0.1uF 25V				
C174	1-163-038-00	CERAMIC	0.1uF 25V				

BD

CD PANEL

H.P.

Ref. No.	Part No.	Description	Remark
R112	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R113	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R114	1-216-105-00	METAL GLAZE 220K	5% 1/10W
R152	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R153	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R154	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R155	1-216-093-00	METAL GLAZE 68K	5% 1/10W
R156	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R157	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R158	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R159	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R160	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R171	1-216-001-00	METAL GLAZE 10	5% 1/10W
R172	1-216-001-00	METAL GLAZE 10	5% 1/10W
R173	1-216-001-00	METAL GLAZE 10	5% 1/10W
R174	1-216-001-00	METAL GLAZE 10	5% 1/10W
< VARIABLE RESISTOR >			
RV101	1-238-016-11	RES. ADJ. CARBON 10K	
RV102	1-238-016-11	RES. ADJ. CARBON 10K	
< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF	

*	A-4347-069-A	CD PANEL BOARD, COMPLETE	

*	4-921-941-01	CUSHION (FL)	
*	4-942-301-01	HOLDER, FL TUBE	
< CAPACITOR >			
C201	1-164-159-11	CERAMIC 0.1uF	50V
C202	1-124-261-00	ELECT 10uF	20% 50V
C203	1-124-261-00	ELECT 10uF	20% 50V
C204	1-164-159-11	CERAMIC 0.1uF	50V
< CONNECTOR >			
* CN201	1-568-869-11	SOCKET, CONNECTOR 27P	
< FILTER >			
FL201	1-519-611-21	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC201	8-752-832-30	IC CXP50112-241Q	
< RESISTOR >			
R202	1-249-425-11	CARBON 4.7K 5%	1/4W

Ref. No.	Part No.	Description	Remark
R203	1-249-425-11	CARBON 4.7K 5%	1/4W
R204	1-249-432-11	CARBON 18K 5%	1/4W
R205	1-249-432-11	CARBON 18K 5%	1/4W
R215	1-249-422-11	CARBON 2.7K 5%	1/4W
R216	1-249-432-11	CARBON 18K 5%	1/4W
R217	1-249-427-11	CARBON 6.8K 5%	1/4W
R218	1-249-424-11	CARBON 3.9K 5%	1/4W
R219	1-249-422-11	CARBON 2.7K 5%	1/4W
R220	1-249-432-11	CARBON 18K 5%	1/4W
R221	1-249-427-11	CARBON 6.8K 5%	1/4W
R222	1-249-424-11	CARBON 3.9K 5%	1/4W
R223	1-249-422-11	CARBON 2.7K 5%	1/4W
R224	1-249-432-11	CARBON 18K 5%	1/4W
R225	1-249-427-11	CARBON 6.8K 5%	1/4W
R226	1-249-424-11	CARBON 3.9K 5%	1/4W
R227	1-249-422-11	CARBON 2.7K 5%	1/4W
R230	1-249-429-11	CARBON 10K 5%	1/4W
R231	1-249-429-11	CARBON 10K 5%	1/4W
R232	1-249-429-11	CARBON 10K 5%	1/4W
R233	1-249-429-11	CARBON 10K 5%	1/4W
< SWITCH >			
S201	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S202	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S203	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S204	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
S205	1-554-303-21	SWITCH, TACTILE (EDIT)	
S206	1-554-303-21	SWITCH, TACTILE (▶▶)	
S207	1-554-303-21	SWITCH, TACTILE (◀◀)	
S208	1-554-303-21	SWITCH, TACTILE (■)	
S209	1-554-303-21	SWITCH, TACTILE (▮▮)	
S210	1-554-303-21	SWITCH, TACTILE (▶)	
S211	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
S212	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S213	1-554-303-21	SWITCH, TACTILE (CHECK)	
S214	1-554-303-21	SWITCH, TACTILE (FADE)	
S215	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S216	1-554-303-21	SWITCH, TACTILE (TIME)	
< CRYSTAL >			
X201	1-577-358-21	VIBRATOR, CERAMIC (4MHz)	

*	1-641-707-11	H. P. BOARD	

< CAPACITOR >			
C1237	1-162-282-31	CERAMIC 100PF 10%	50V (G, IT)

H.P.

LEAF SW(A)

LEAF SW(B)

LOADING

MAIN

Ref. No.	Part No.	Description	Remark
C1238	1-162-282-31	CERAMIC 100PF 10% 50V (G, IT)	
< CONNECTOR >			
CNJ12011-691-003-21 JACK, LARGE TYPE			

1-640-702-12 LEAF SW (A) BOARD			

< CAPACITOR >			
C544	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN415	1-568-942-11	PIN, CONNECTOR 4P	
< SWITCH >			
S4	1-571-736-11	SWITCH, LEAF (MOTOR)	
S5	1-571-736-11	SWITCH, LEAF (FWD)	

1-640-703-12 LEAF SW (B) BOARD			

< CAPACITOR >			
C545	1-164-159-11	CERAMIC 0.1uF 50V	
< CONNECTOR >			
* CN416	1-568-943-11	PIN, CONNECTOR 5P	
< SWITCH >			
S1	1-571-736-11	SWITCH, LEAF (MOTOR)	
S2	1-571-736-11	SWITCH, LEAF (FWD)	
S3	1-571-736-11	SWITCH, LEAF (REC)	

* 1-632-202-11	LOADING BOARD		

< CONNECTOR >			
* CN301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	
< SWITCH >			
S271	1-572-086-11	SWITCH, LEAF	
S272	1-572-086-11	SWITCH, LEAF	

* A-4347-065-A	MAIN BOARD, COMPLETE (AEP, UK)		
* A-4347-362-A	MAIN BOARD, COMPLETE (G, IT)		
* A-4347-521-A	MAIN BOARD, COMPLETE (US, CND)		

Ref. No.	Part No.	Description	Remark
*	A-4347-896-A	MAIN BOARD, COMPLETE (EE)	

*	4-942-204-01	PLATE, GROUND	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
< CAPACITOR >			
C301	1-161-379-00	CERAMIC 0.01uF 20% 25V (G, IT)	
C302	1-124-477-11	ELECT 47uF 20% 25V	
C303	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C305	1-161-379-00	CERAMIC 0.01uF 20% 25V (G, IT)	
C306	1-161-379-00	CERAMIC 0.01uF 20% 25V (G, IT)	
C307	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C308	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C309	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C310	1-124-477-11	ELECT 47uF 20% 25V	
C311	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C312	1-101-006-00	CERAMIC 0.047uF 50V	
C313	1-123-382-00	ELECT 3.3uF 20% 100V	
C314	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C315	1-161-329-00	CERAMIC 0.0068uF 30% 16V	
C316	1-162-282-31	CERAMIC 100PF 10% 50V	
C317	1-162-292-31	CERAMIC 680PF 10% 50V (G, IT)	
C318	1-124-903-11	ELECT 1uF 20% 50V	
C320	1-124-903-11	ELECT 1uF 20% 50V	
C321	1-124-902-00	ELECT 0.47uF 20% 50V	
C322	1-124-463-00	ELECT 0.1uF 20% 50V	
C323	1-161-379-00	CERAMIC 0.01uF 20% 25V (US, CND)	
C323	1-161-329-00	CERAMIC 0.0068uF 30% 16V (AEP, G, IT, EE, UK)	
C324	1-161-379-00	CERAMIC 0.01uF 20% 25V (US, CND)	
C324	1-161-329-00	CERAMIC 0.0068uF 30% 16V (AEP, G, IT, EE, UK)	
C325	1-124-477-11	ELECT 47uF 20% 25V	
C326	1-124-907-11	ELECT 10uF 20% 50V	
C327	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C328	1-124-463-00	ELECT 0.1uF 20% 50V	
C329	1-124-927-11	ELECT 4.7uF 20% 100V	
C330	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C331	1-126-176-11	ELECT 220uF 20% 10V	
C332	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C335	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C336	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C339	1-162-210-31	CERAMIC 30PF 5% 50V (AEP, G, IT, EE, UK)	
C341	1-123-382-00	ELECT 3.3uF 20% 100V	
C342	1-123-382-00	ELECT 3.3uF 20% 100V	
C343	1-123-382-00	ELECT 3.3uF 20% 100V	
C344	1-123-382-00	ELECT 3.3uF 20% 100V	
C345	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C346	1-161-375-00	CERAMIC 0.0022uF 20% 50V	

MAIN

Ref. No.	Part No.	Description	Remark
C351	1-161-494-00	CERAMIC 0.022uF 25V (AEP, G, IT, EE, UK)	
C352	1-102-120-00	CERAMIC 0.0018uF 10% 50V (AEP, G, IT, EE, UK)	
C353	1-161-374-11	CERAMIC 0.0015uF 20% 50V (AEP, G, IT, EE, UK)	
C354	1-161-494-00	CERAMIC 0.022uF 25V (AEP, G, IT, EE, UK)	
C361	1-164-098-11	CERAMIC 0.047uF 12V	
C362	1-161-494-00	CERAMIC 0.022uF 25V	
C363	1-164-159-11	CERAMIC 0.1uF 50V (AEP, G, IT, EE, UK)	
C364	1-161-494-00	CERAMIC 0.022uF 25V (AEP, G, IT, EE, UK)	
C371	1-162-199-31	CERAMIC 10PF 5% 50V (US, CND)	
C371	1-162-196-31	CERAMIC 5.6PF 10% 50V (AEP, G, IT, EE, UK)	
C401	1-124-907-11	ELECT 10uF 20% 50V	
C402	1-126-176-11	ELECT 220uF 20% 10V	
C403	1-124-907-11	ELECT 10uF 20% 50V	
C404	1-124-903-11	ELECT 1uF 20% 50V	
C405	1-124-443-00	ELECT 100uF 20% 10V	
C406	1-124-472-11	ELECT 470uF 20% 10V	
C407	1-164-159-11	CERAMIC 0.1uF 50V	
C408	1-164-159-11	CERAMIC 0.1uF 50V	
C410	1-124-902-00	ELECT 0.47uF 20% 50V	
C411	1-136-153-00	FILM 0.01uF 5% 50V	
C412	1-124-443-00	ELECT 100uF 20% 10V	
C413	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C414	1-136-161-00	FILM 0.047uF 5% 50V	
C415	1-124-443-00	ELECT 100uF 20% 10V	
C416	1-164-159-11	CERAMIC 0.1uF 50V	
C418	1-124-443-00	ELECT 100uF 20% 10V	
C419	1-164-159-11	CERAMIC 0.1uF 50V	
C420	1-164-159-11	CERAMIC 0.1uF 50V	
C430	1-162-207-31	CERAMIC 22PF 5% 50V	
C431	1-162-207-31	CERAMIC 22PF 5% 50V	
C432	1-124-443-00	ELECT 100uF 20% 10V	
C433	1-124-443-00	ELECT 100uF 20% 10V	
C434	1-164-159-11	CERAMIC 0.1uF 50V	
C435	1-164-159-11	CERAMIC 0.1uF 50V	
C436	1-124-443-00	ELECT 100uF 20% 10V	
C439	1-164-159-11	CERAMIC 0.1uF 50V	
C447	1-164-159-11	CERAMIC 0.1uF 50V	
C448	1-164-159-11	CERAMIC 0.1uF 50V	
C456	1-124-903-11	ELECT 1uF 20% 50V	
C457	1-124-903-11	ELECT 1uF 20% 50V	
C458	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C459	1-130-475-00	MYLAR 0.0022uF 5% 50V	
C460	1-162-286-31	CERAMIC 220PF 10% 50V	
C461	1-162-286-31	CERAMIC 220PF 10% 50V	
C462	1-124-907-11	ELECT 10uF 20% 50V	
C463	1-124-907-11	ELECT 10uF 20% 50V	
C464	1-162-288-31	CERAMIC 330PF 10% 50V	
C465	1-162-288-31	CERAMIC 330PF 10% 50V	
C467	1-162-294-31	CERAMIC 0.001uF 10% 50V	

Ref. No.	Part No.	Description	Remark
C501	1-102-961-00	CERAMIC 27PF 5% 50V	
C502	1-102-961-00	CERAMIC 27PF 5% 50V	
C503	1-124-477-11	ELECT 47uF 20% 25V	
C504	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C505	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C506	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C507	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C521	1-124-925-11	ELECT 2.2uF 20% 100V	
C522	1-124-463-00	ELECT 0.1uF 20% 50V	
C523	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C524	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C525	1-124-477-11	ELECT 47uF 20% 25V (US, CND, AEP, G, IT, UK)	
C525	1-126-101-11	ELECT 100uF 20% 16V (EE)	
C530	1-161-379-00	CERAMIC 0.01uF 20% 25V (G, IT)	
C531	1-136-173-00	FILM 0.47uF 5% 50V (AEP, G, IT, EE, UK)	
C532	1-161-494-00	CERAMIC 0.022uF 25V (AEP, G, IT, EE, UK)	
C533	1-124-463-00	ELECT 0.1uF 20% 50V (AEP, G, IT, EE, UK)	
C1001	1-124-925-11	ELECT 2.2uF 20% 100V	
C1002	1-162-282-31	CERAMIC 100PF 10% 50V	
C1003	1-162-282-31	CERAMIC 100PF 10% 50V	
C1004	1-124-477-11	ELECT 47uF 20% 25V	
C1005	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C1006	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C1007	1-124-464-11	ELECT 0.22uF 20% 50V	
C1008	1-124-477-11	ELECT 47uF 20% 25V	
C1010	1-124-477-11	ELECT 47uF 20% 25V	
C1012	1-124-925-11	ELECT 2.2uF 20% 100V	
C1013	1-162-290-31	CERAMIC 470PF 10% 50V	
C1014	1-161-494-00	CERAMIC 0.022uF 25V	
C1025	1-162-286-31	CERAMIC 220PF 10% 50V	
C1051	1-124-925-11	ELECT 2.2uF 20% 100V	
C1052	1-162-282-31	CERAMIC 100PF 10% 50V	
C1053	1-162-282-31	CERAMIC 100PF 10% 50V	
C1054	1-124-477-11	ELECT 47uF 20% 25V	
C1055	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C1056	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C1057	1-124-464-11	ELECT 0.22uF 20% 50V	
C1058	1-124-477-11	ELECT 47uF 20% 25V	
C1060	1-124-477-11	ELECT 47uF 20% 25V	
C1062	1-124-925-11	ELECT 2.2uF 20% 100V	
C1063	1-162-290-31	CERAMIC 470PF 10% 50V	
C1064	1-161-494-00	CERAMIC 0.022uF 25V	
C1075	1-162-286-31	CERAMIC 220PF 10% 50V	
C1212	1-126-233-11	ELECT 22uF 20% 50V	
C1213	1-126-233-11	ELECT 22uF 20% 50V	
C1221	1-126-101-11	ELECT 100uF 20% 16V	
C1222	1-126-176-11	ELECT 220uF 20% 10V	
C1223	1-126-176-11	ELECT 220uF 20% 10V	
C1245	1-101-006-00	CERAMIC 0.047uF 50V (G, IT)	

Ref. No.	Part No.	Description	Remark
C1246	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1247	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1248	1-101-006-00	CERAMIC	0.047uF 50V (G, IT)
C1249	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1250	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1262	1-126-233-11	ELECT	22uF 20% 50V
C1263	1-126-233-11	ELECT	22uF 20% 50V
C1294	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1302	1-102-394-11	CERAMIC	0.01uF 250V
C1304	1-126-413-11	ELECT	3300uF 20% 35V
C1305	1-126-413-11	ELECT	3300uF 20% 35V
C1306	1-124-477-11	ELECT	47uF 20% 25V
C1308	1-126-101-11	ELECT	100uF 20% 16V
C1309	1-126-101-11	ELECT	100uF 20% 16V
C1312	1-124-563-11	ELECT	2200uF 20% 25V
C1313	1-126-946-11	ELECT	6800uF 20% 25V
C1319	1-124-463-00	ELECT	0.1uF 20% 50V
C1320	1-124-907-11	ELECT	10uF 20% 50V
C1321	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1322	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1324	1-124-907-11	ELECT	10uF 20% 50V
C1326	1-124-907-11	ELECT	10uF 20% 50V
C1330	1-126-101-11	ELECT	100uF 20% 16V
C1331	1-102-394-11	CERAMIC	0.01uF 250V
C1335	1-124-907-11	ELECT	10uF 20% 50V (AEP, G, IT, EE, UK)
C1336	1-126-101-11	ELECT	100uF 20% 16V (AEP, G, IT, EE, UK)
C1341	1-124-907-11	ELECT	10uF 20% 50V
C1346	1-124-925-11	ELECT	2.2uF 20% 100V
C1351	1-124-122-11	ELECT	100uF 20% 50V
C1352	1-126-105-11	ELECT	1000uF 20% 35V
C1353	1-136-165-00	FILM	0.1uF 5% 50V
C1354	1-136-165-00	FILM	0.1uF 5% 50V
C1361	1-124-122-11	ELECT	100uF 20% 50V
C1381	1-136-165-91	FILM	0.1uF 5% 50V

< FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (US, CND, AEP, EE, UK)
CF301	1-567-389-11	FILTER, CERAMIC (G, IT)
CF303	1-577-070-81	FILTER, CERAMIC (US, CND, AEP, EE, UK)
CF303	1-567-389-11	FILTER, CERAMIC (G, IT)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

< CONNECTOR >

* CN402	1-568-822-11	SOCKET, CONNECTOR 22P
* CN403	1-568-842-11	SOCKET, CONNECTOR 27P
* CN405	1-560-064-00	PIN, CONNECTOR 6P
* CN406	1-560-060-00	PIN, CONNECTOR 2P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P

Ref. No.	Part No.	Description	Remark
* CN1001	1-580-691-11	JACK, PIN 2P	
* CN1002	1-580-691-11	JACK, PIN 2P	
* CN1201	1-537-327-11	TERMINAL BOARD	
CN1202	1-569-130-11	JACK, PIN 2P (AEP, G, IT, EE, UK)	
* CN1203	1-564-506-11	PLUG, CONNECTOR 3P	
* CN1204	1-564-510-11	PLUG, CONNECTOR 7P	
* CN1205	1-568-934-11	PIN, CONNECTOR 7P	
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P	
* CN1211	1-564-506-11	PLUG, CONNECTOR 3P	
* CN1212	1-564-508-11	PLUG, CONNECTOR 5P	
* CN1301	1-566-210-11	PIN, CONNECTOR 3P (AEP, G, IT, EE, UK)	

< DIODE >

D351	8-719-912-20	DIODE 1SS120 (AEP, G, IT, EE, UK)
D1202	8-719-912-20	DIODE 1SS120
D1203	8-719-912-20	DIODE 1SS120
D1204	8-719-912-20	DIODE 1SS120
D1302	8-719-312-09	DIODE RBA-402
D1303	8-719-200-82	DIODE 11ES2
D1304	8-719-200-82	DIODE 11ES2
D1305	8-719-200-82	DIODE 11ES2
D1306	8-719-200-82	DIODE 11ES2
D1318	8-719-200-82	DIODE 11ES2
D1319	8-719-200-82	DIODE 11ES2
D1321	8-719-912-20	DIODE 1SS120
D1323	8-719-912-20	DIODE 1SS120
D1324	8-719-912-20	DIODE 1SS120
D1341	8-719-001-76	DIODE UZL-12M3
D1368	8-719-200-82	DIODE 11ES2
D1369	8-719-200-82	DIODE 11ES2

< FRONT END >

FE301	1-463-857-21	FRONT END (FM) (G, IT)
FE301	1-465-006-11	FRONT END (FM) (2 GANG) (US, CND, AEP, UK)
FE301	1-465-396-11	FRONT END (FM) (3 GANG) (EE)
FE351	1-236-463-11	ENCAPSULATED COMPONENT (AEP, G, IT, EE, UK)
FE352	1-239-260-11	ENCAPSULATED COMPONENT (US, CND)

FE352	1-239-261-11	ENCAPSULATED COMPONENT (AEP, G, IT, EE, UK)
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< IC >

IC301	8-759-821-45	IC LA1851N
IC400	8-759-604-86	IC M5F7807L
IC401	8-759-821-93	IC LA5601
IC402	8-752-337-26	IC CXD2500AQ
IC403	8-752-337-09	IC CXD2554P
IC404	8-759-506-63	IC PCM67U
IC406	8-759-634-51	IC M5218AP
IC407	8-759-634-51	IC M5218AP

MAIN

Ref. No.	Part No.	Description	Remark
IC501	8-759-820-91	IC LC7218	
IC1001	8-759-634-51	IC M5218AP	
IC1002	8-759-000-48	IC MC14052BCP	
IC1003	8-759-634-51	IC M5218AP	
IC1004	8-759-000-49	IC MC14066BCP	
IC1202	8-759-111-68	IC μ PC1237HA	
IC1303	8-759-604-86	IC M5F7807L	
IC1304	8-759-604-90	IC M5F7907L	
IC1305	8-759-820-13	IC L78MR06	
IC1306	8-759-231-58	IC M5F7812L (AEP, G, IT, EE, UK)	

< TRANSFORMER >

IFT301 1-404-713-11 TRANSFORMER, IF

< COIL >

L301	1-410-686-11	INDUCTOR	1mH (US, CND)
L301	1-407-500-00	INDUCTOR	4.7mH (AEP, G, IT, EE, UK)
L351	1-410-525-11	INDUCTOR	220 μ H (AEP, G, IT, EE, UK)
L1301	1-408-117-00	INDUCTOR	10 μ H (G, IT)
L1302	1-408-117-00	INDUCTOR	10 μ H (G, IT)

< FILTER >

LPF301	1-235-164-00	FILTER, LOW PASS
LPF301	1-235-164-31	FILTER, LOW PASS
LPF302	1-235-164-00	FILTER, LOW PASS
LPF302	1-235-164-31	FILTER, LOW PASS

< IC LINK >

⚠ PS401 1-532-675-00 LINK, IC 1.5A

< TRANSISTOR >

Q301	8-729-230-99	TRANSISTOR	2SC2669-0Y (G, IT)
Q302	8-729-230-99	TRANSISTOR	2SC2669-0Y (G, IT)
Q303	8-729-230-99	TRANSISTOR	2SC2669-0Y
Q304	8-729-230-99	TRANSISTOR	2SC2669-0Y
Q305	8-729-900-80	TRANSISTOR	DTC114ES
Q306	8-729-900-61	TRANSISTOR	DTA114ES
Q307	8-729-900-80	TRANSISTOR	DTC114ES
Q308	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q309	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q351	8-729-900-80	TRANSISTOR	DTC114ES (AEP, G, IT, EE, UK)
Q352	8-729-119-78	TRANSISTOR	2SC2785-HFE (AEP, G, IT, EE, UK)
Q353	8-729-119-76	TRANSISTOR	2SA1175-HFE (AEP, G, IT, EE, UK)
Q354	8-729-900-80	TRANSISTOR	DTC114ES (AEP, G, IT, EE, UK)
Q355	8-729-900-80	TRANSISTOR	DTC114ES (AEP, G, IT, EE, UK)
Q356	8-729-900-80	TRANSISTOR	DTC114ES (AEP, G, IT, EE, UK)
Q413	8-729-141-30	TRANSISTOR	2SC3623A-LK
Q414	8-729-900-61	TRANSISTOR	DTA114ES

Ref. No.	Part No.	Description	Remark
Q415	8-729-900-61	TRANSISTOR	DTA114ES
Q501	8-729-900-80	TRANSISTOR	DTC114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q521	8-729-202-67	TRANSISTOR	2SK246-GR3
Q522	8-729-201-84	TRANSISTOR	2SC3112-B
Q531	8-729-202-67	TRANSISTOR	2SK246-GR3 (AEP, G, IT, EE, UK)
Q532	8-729-201-84	TRANSISTOR	2SC3112-B (AEP, G, IT, EE, UK)
Q1001	8-729-11	TRANSISTOR	2SA1175-HFE
Q1002	8-729-900-36	TRANSISTOR	DTC124ES
Q1034	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1035	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1204	8-729-900-63	TRANSISTOR	DTA124ES
Q1302	8-729-209-15	TRANSISTOR	2SD2012

< RESISTOR >

R301	1-249-401-11	CARBON	47 5% 1/4W
R302	1-249-413-11	CARBON	470 5% 1/4W (US, CND, AEP, EE, UK)
R302	1-249-405-11	CARBON	100 5% 1/4W (G, IT)
R303	1-249-411-11	CARBON	330 5% 1/4W (G, IT)
R304	1-249-432-11	CARBON	18K 5% 1/4W (G, IT)
R305	1-249-411-11	CARBON	330 5% 1/4W (G, IT)
R306	1-249-434-11	CARBON	27K 5% 1/4W (G, IT)
R307	1-249-414-11	CARBON	560 5% 1/4W (G, IT)
R308	1-249-411-11	CARBON	330 5% 1/4W
R309	1-249-432-11	CARBON	18K 5% 1/4W
R310	1-249-411-11	CARBON	330 5% 1/4W
R311	1-249-434-11	CARBON	27K 5% 1/4W
R312	1-249-414-11	CARBON	560 5% 1/4W
R313	1-249-405-11	CARBON	100 5% 1/4W
R314	1-249-437-11	CARBON	47K 5% 1/4W (G, IT)
R315	1-249-404-00	CARBON	82 5% 1/4W
R315	1-249-435-11	CARBON	33K 5% 1/4W (G, IT)
R316	1-249-428-11	CARBON	8.2K 5% 1/4W (US, CND)
R316	1-249-429-11	CARBON	10K 5% 1/4W (AEP, G, IT, EE, UK)
R317	1-249-417-11	CARBON	1K 5% 1/4W
R318	1-249-435-11	CARBON	33K 5% 1/4W
R319	1-249-428-11	CARBON	8.2K 5% 1/4W
R320	1-249-432-11	CARBON	18K 5% 1/4W
R321	1-249-423-11	CARBON	3.3K 5% 1/4W
R322	1-249-429-11	CARBON	10K 5% 1/4W
R323	1-249-418-11	CARBON	1.2K 5% 1/4W (US, CND, AEP, EE, UK)
R323	1-249-417-11	CARBON	1K 5% 1/4W (G, IT)
R324	1-249-429-11	CARBON	10K 5% 1/4W
R325	1-249-429-11	CARBON	10K 5% 1/4W
R326	1-249-409-11	CARBON	220 5% 1/4W
R327	1-249-437-11	CARBON	47K 5% 1/4W
R328	1-249-437-11	CARBON	47K 5% 1/4W
R331	1-247-891-00	CARBON	330K 5% 1/4W
R332	1-247-891-00	CARBON	330K 5% 1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R333	1-249-421-11	CARBON	2. 2K 5% 1/4W	R446	1-249-435-11	CARBON	33K 5% 1/4W
R334	1-249-421-11	CARBON	2. 2K 5% 1/4W	R447	1-249-441-11	CARBON	100K 5% 1/4W
R335	1-249-420-11	CARBON	1. 8K 5% 1/4W	R448	1-249-441-11	CARBON	100K 5% 1/4W
R336	1-249-420-11	CARBON	1. 8K 5% 1/4W	R449	1-249-425-11	CARBON	4. 7K 5% 1/4W
R337	1-249-426-11	CARBON	5. 6K 5% 1/4W	R450	1-249-425-11	CARBON	4. 7K 5% 1/4W
R338	1-249-426-11	CARBON	5. 6K 5% 1/4W	R460	1-249-441-11	CARBON	100K 5% 1/4W
R351	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R461	1-249-441-11	CARBON	100K 5% 1/4W
R352	1-249-437-11	CARBON	47K 5% 1/4W (AEP, G, IT, EE, UK)	R467	1-249-429-11	CARBON	10K 5% 1/4W
R353	1-247-903-00	CARBON	1M 5% 1/4W (AEP, G, IT, EE, UK)	R501	1-249-417-11	CARBON	1K 5% 1/4W
R354	1-249-441-11	CARBON	100K 5% 1/4W (AEP, G, IT, EE, UK)	R502	1-249-417-11	CARBON	1K 5% 1/4W
R355	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R503	1-249-417-11	CARBON	1K 5% 1/4W
R356	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, G, IT, EE, UK)	R504	1-249-417-11	CARBON	1K 5% 1/4W
R361	1-249-437-11	CARBON	47K 5% 1/4W	R505	1-249-429-11	CARBON	10K 5% 1/4W
R362	1-249-437-11	CARBON	47K 5% 1/4W	R506	1-249-417-11	CARBON	1K 5% 1/4W
R363	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)	R510	1-249-401-11	CARBON	47 5% 1/4W
R364	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)	R511	1-249-429-11	CARBON	10K 5% 1/4W
R365	1-249-429-11	CARBON	10K 5% 1/4W (AEP, G, IT, EE, UK)	R512	1-249-425-11	CARBON	4. 7K 5% 1/4W
R366	1-249-413-11	CARBON	470 5% 1/4W (AEP, G, IT, EE, UK)	R513	1-249-417-11	CARBON	1K 5% 1/4W
R367	1-249-434-11	CARBON	27K 5% 1/4W (AEP, G, IT, EE, UK)	R514	1-249-429-11	CARBON	10K 5% 1/4W
R368	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)	R515	1-249-417-11	CARBON	1K 5% 1/4W
R401	1-249-405-11	CARBON	100 5% 1/4W	R521	1-249-423-11	CARBON	3. 3K 5% 1/4W
R408	1-249-429-11	CARBON	10K 5% 1/4W	R522	1-249-425-11	CARBON	4. 7K 5% 1/4W
R409	1-249-423-11	CARBON	3. 3K 5% 1/4W	R523	1-249-414-11	CARBON	560 5% 1/4W
R410	1-249-423-11	CARBON	3. 3K 5% 1/4W	R524	1-249-417-11	CARBON	1K 5% 1/4W
R411	1-249-441-11	CARBON	100K 5% 1/4W	R525	1-249-410-11	CARBON	270 5% 1/4W
R412	1-249-429-11	CARBON	10K 5% 1/4W	R526	1-249-421-11	CARBON	2. 2K 5% 1/4W
R413	1-249-417-11	CARBON	1K 5% 1/4W	R527	1-249-425-11	CARBON	4. 7K 5% 1/4W
R414	1-249-417-11	CARBON	1K 5% 1/4W	R528	1-249-425-11	CARBON	4. 7K 5% 1/4W
R415	1-249-420-11	CARBON	1. 8K 5% 1/4W	R529	1-249-405-11	CARBON	100 5% 1/4W
R416	1-249-417-11	CARBON	1K 5% 1/4W	R530	1-249-405-11	CARBON	100 5% 1/4W
R417	1-249-417-11	CARBON	1K 5% 1/4W	R531	1-249-423-11	CARBON	3. 3K 5% 1/4W (AEP, G, IT, EE, UK)
R418	1-249-417-11	CARBON	1K 5% 1/4W	R532	1-249-433-11	CARBON	22K 5% 1/4W (AEP, G, IT, EE, UK)
R419	1-249-417-11	CARBON	1K 5% 1/4W	R533	1-249-414-11	CARBON	560 5% 1/4W (AEP, G, IT, EE, UK)
R420	1-249-433-11	CARBON	22K 5% 1/4W	R534	1-249-417-11	CARBON	1K 5% 1/4W (AEP, G, IT, EE, UK)
R421	1-249-413-11	CARBON	470 5% 1/4W	R535	1-249-410-11	CARBON	270 5% 1/4W (AEP, G, IT, EE, UK)
R422	1-249-413-11	CARBON	470 5% 1/4W	R536	1-249-421-11	CARBON	2. 2K 5% 1/4W (AEP, G, IT, EE, UK)
R423	1-249-417-11	CARBON	1K 5% 1/4W	R537	1-249-425-11	CARBON	4. 7K 5% 1/4W (AEP, G, IT, EE, UK)
R424	1-249-417-11	CARBON	1K 5% 1/4W	R538	1-249-405-11	CARBON	100 5% 1/4W (AEP, EE, UK)
R425	1-249-417-11	CARBON	1K 5% 1/4W	R1001	1-249-417-11	CARBON	1K 5% 1/4W
R426	1-249-418-11	CARBON	1. 2K 5% 1/4W	R1002	1-249-441-11	CARBON	100K 5% 1/4W
R427	1-249-418-11	CARBON	1. 2K 5% 1/4W	R1003	1-249-416-11	CARBON	820 5% 1/4W
R437	1-249-417-11	CARBON	1K 5% 1/4W	R1004	1-247-897-11	CARBON	560K 5% 1/4W
R438	1-249-417-11	CARBON	1K 5% 1/4W	R1005	1-249-437-11	CARBON	47K 5% 1/4W
R441	1-249-441-11	CARBON	100K 5% 1/4W	R1006	1-249-409-11	CARBON	220 5% 1/4W
R442	1-249-441-11	CARBON	100K 5% 1/4W	R1007	1-249-441-11	CARBON	100K 5% 1/4W
R443	1-249-429-11	CARBON	10K 5% 1/4W	R1008	1-249-409-11	CARBON	220 5% 1/4W
R444	1-249-429-11	CARBON	10K 5% 1/4W	R1011	1-249-441-11	CARBON	100K 5% 1/4W
R445	1-249-435-11	CARBON	33K 5% 1/4W	R1012	1-249-417-11	CARBON	1K 5% 1/4W

MAIN

PANEL

Ref. No.	Part No.	Description	Remark		
R1013	1-249-441-11	CARBON	100K	5%	1/4W
R1014	1-249-437-11	CARBON	47K	5%	1/4W
R1015	1-249-437-11	CARBON	47K	5%	1/4W
R1016	1-249-421-11	CARBON	2.2K	5%	1/4W
R1017	1-249-421-11	CARBON	2.2K	5%	1/4W
R1018	1-249-433-11	CARBON	22K	5%	1/4W
R1019	1-249-433-11	CARBON	22K	5%	1/4W
R1021	1-249-434-11	CARBON	27K	5%	1/4W
R1023	1-249-434-11	CARBON	27K	5%	1/4W
R1024	1-249-417-11	CARBON	1K	5%	1/4W
R1026	1-249-433-11	CARBON	22K	5%	1/4W
R1029	1-249-433-11	CARBON	22K	5%	1/4W
R1034	1-249-425-11	CARBON	4.7K	5%	1/4W
R1035	1-249-437-11	CARBON	47K	5%	1/4W
R1036	1-249-425-11	CARBON	4.7K	5%	1/4W
R1037	1-249-421-11	CARBON	2.2K	5%	1/4W
R1051	1-249-417-11	CARBON	1K	5%	1/4W
R1052	1-249-441-11	CARBON	100K	5%	1/4W
R1053	1-249-416-11	CARBON	820	5%	1/4W
R1054	1-247-897-11	CARBON	560K	5%	1/4W
R1055	1-249-437-11	CARBON	47K	5%	1/4W
R1056	1-249-409-11	CARBON	220	5%	1/4W
R1057	1-249-441-11	CARBON	100K	5%	1/4W
R1058	1-249-409-11	CARBON	220	5%	1/4W
R1061	1-249-441-11	CARBON	100K	5%	1/4W
R1062	1-249-417-11	CARBON	1K	5%	1/4W
R1063	1-249-441-11	CARBON	100K	5%	1/4W
R1071	1-249-434-11	CARBON	27K	5%	1/4W
R1073	1-249-434-11	CARBON	27K	5%	1/4W
R1074	1-249-417-11	CARBON	1K	5%	1/4W
R1095	1-249-433-11	CARBON	22K	5%	1/4W
R1222	1-249-415-11	CARBON	680	5%	1/4W
R1223	1-249-415-11	CARBON	680	5%	1/4W
R1226	1-215-887-00	METAL OXIDE	150	5%	2W F
R1233	1-249-432-11	CARBON	18K	5%	1/4W
R1234	1-249-432-11	CARBON	18K	5%	1/4W
R1235	1-249-435-11	CARBON	33K	5%	1/4W
R1236	1-249-441-11	CARBON	100K	5%	1/4W
R1237	1-249-429-11	CARBON	10K	5%	1/4W
R1240	1-249-438-11	CARBON	56K	5%	1/4W
R1241	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)
R1242	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)
R1243	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)
R1244	1-249-385-11	CARBON	2.2	5%	1/6W (G, IT)
R1272	1-249-415-11	CARBON	680	5%	1/4W
R1273	1-249-415-11	CARBON	680	5%	1/4W
R1290	1-249-437-11	CARBON	47K	5%	1/4W
R1301	1-249-429-11	CARBON	10K	5%	1/4W
R1302	1-249-429-11	CARBON	10K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R1321	1-249-417-11	CARBON	1K	5%	1/4W
R1322	1-249-429-11	CARBON	10K	5%	1/4W
R1345	1-249-421-11	CARBON	2.2K	5%	1/4W
R1346	1-249-425-11	CARBON	4.7K	5%	1/4W (AEP, G, IT, EE, UK)
< VARIABLE RESISTOR >					
RV301	1-238-601-11	RES. ADJ. CARBON 22K			
RV302	1-238-601-11	RES. ADJ. CARBON 22K			
< RELAY >					
RY1201	1-515-533-11	RELAY			
< TRANSFORMER >					
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR			
T302	1-235-126-00	ENCAPSULATED COMPONENT (G, IT)			
< TERMINAL BOARD >					
* TM301	1-537-264-11	TERMINAL BOARD (US, CND)			
* TM301	1-537-288-11	TERMINAL BOARD (PAL) (AEP, G, IT, EE, UK)			
< TEST PIN >					
* TP1	1-560-060-00	PIN, CONNECTOR 2P			
< CRYSTAL >					
X401	1-567-908-11	VIBRATOR, CRYSTAL (16MHz)			
< CRYSTAL >					
XT501	1-577-126-11	VIBRATOR, CRYSTAL (7.5MHz)			
XT501	1-579-383-11	VIBRATOR, CRYSTAL			

*	A-4347-061-A	PANEL BOARD, COMPLETE (AEP, G, UK)			
*	A-4347-360-A	PANEL BOARD, COMPLETE (IT)			
*	A-4347-519-A	PANEL BOARD, COMPLETE (US, CND)			
*	A-4347-894-A	PANEL BOARD, COMPLETE (EE)			

*	4-930-781-11	HOLDER (VO), LED			
*	4-942-301-01	HOLDER, FL TUBE			
*	4-948-247-01	HOLDER (FU), LED			
*	4-949-935-01	CUSHION (FL)			
< CAPACITOR >					
C603	1-136-169-00	FILM	0.22uF	5%	50V
C604	1-164-159-11	CERAMIC	0.1uF		50V
C605	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C606	1-164-159-11	CERAMIC	0.1uF		50V
C607	1-124-907-11	ELECT	10uF	20%	50V

PANEL

Ref. No.	Part No.	Description	Remark
C608	1-161-379-00	CERAMIC	0.01uF 20% 25V
C609	1-161-379-00	CERAMIC	0.01uF 20% 25V
C650	1-124-907-11	ELECT	10uF 20% 50V
C1101	1-124-257-00	ELECT	2.2uF 20% 50V
C1102	1-124-589-11	ELECT	47uF 20% 16V
C1103	1-162-282-31	CERAMIC	100PF 10% 50V
C1104	1-124-257-00	ELECT	2.2uF 20% 50V
C1105	1-124-464-11	ELECT	0.22uF 20% 50V
C1106	1-136-161-00	FILM	0.047uF 5% 50V
C1107	1-136-155-00	FILM	0.015uF 5% 50V
C1108	1-136-155-00	FILM	0.015uF 5% 50V
C1109	1-130-480-00	MYLAR	0.0056uF 5% 50V
C1110	1-161-327-00	CERAMIC	0.0033uF 20% 16V
C1111	1-136-155-00	FILM	0.015uF 5% 50V
C1112	1-136-157-00	FILM	0.022uF 5% 50V
C1113	1-136-153-00	FILM	0.01uF 5% 50V
C1114	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C1115	1-124-257-00	ELECT	2.2uF 20% 50V
C1121	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1123	1-162-286-31	CERAMIC	220PF 10% 50V
C1131	1-162-215-31	CERAMIC	47PF 5% 50V
C1132	1-162-215-31	CERAMIC	47PF 5% 50V
C1151	1-124-257-00	ELECT	2.2uF 20% 50V
C1152	1-124-589-11	ELECT	47uF 20% 16V
C1153	1-162-282-31	CERAMIC	100PF 10% 50V
C1154	1-124-257-00	ELECT	2.2uF 20% 50V
C1155	1-124-464-11	ELECT	0.22uF 20% 50V
C1156	1-136-161-00	FILM	0.047uF 5% 50V
C1157	1-136-155-00	FILM	0.015uF 5% 50V
C1158	1-136-155-00	FILM	0.015uF 5% 50V
C1159	1-130-480-00	MYLAR	0.0056uF 5% 50V
C1160	1-161-327-00	CERAMIC	0.0033uF 20% 16V
C1161	1-136-155-00	FILM	0.015uF 5% 50V
C1162	1-136-157-00	FILM	0.022uF 5% 50V
C1163	1-136-153-00	FILM	0.01uF 5% 50V
C1164	1-161-377-00	CERAMIC	0.0047uF 20% 16V
C1165	1-124-257-00	ELECT	2.2uF 20% 50V
C1173	1-162-286-31	CERAMIC	220PF 10% 50V
C1181	1-162-215-31	CERAMIC	47PF 5% 50V
C1182	1-162-215-31	CERAMIC	47PF 5% 50V
C1197	1-161-379-00	CERAMIC	0.01uF 20% 25V
C1198	1-161-494-00	CERAMIC	0.022uF 25V

< CONNECTOR >

- * CN601 1-568-830-11 SOCKET, CONNECTOR 11P
 CN1101 1-568-802-11 SOCKET, CONNECTOR 19P

Ref. No.	Part No.	Description	Remark
< DIODE >			
D601	8-719-912-20	DIODE 1SS120	
D602	8-719-010-26	DIODE UZ-3.9BSB	
D603	8-719-912-20	DIODE 1SS120	
D604	8-719-912-20	DIODE 1SS120	
D611	8-719-912-20	DIODE 1SS120	
D612	8-719-912-20	DIODE 1SS120	
D613	8-719-912-20	DIODE 1SS120	
D614	8-719-912-20	DIODE 1SS120	
D618	8-719-912-20	DIODE 1SS120	
D621	8-719-912-20	DIODE 1SS120 (US, CND, IT)	
D622	8-719-912-20	DIODE 1SS120 (EE)	
D624	8-719-912-20	DIODE 1SS120 (US, CND, EE)	
D625	8-719-912-20	DIODE 1SS120	
D636	8-719-912-20	DIODE 1SS120	
D641	8-719-200-82	DIODE 11ES2	
D1130	8-719-302-45	LED SEL1210S (VIDEO)	
D1131	8-719-302-45	LED SEL1210S (CD)	
D1132	8-719-302-45	LED SEL1210S (PHONO)	
D1133	8-719-302-45	LED SEL1210S (TUNER)	
D1134	8-719-302-45	LED SEL1210S (TAPE)	
D1145	8-719-301-39	LED SEL2210S-D (VOLUME)	
D1151	8-719-912-20	DIODE 1SS120	
D1152	8-719-912-20	DIODE 1SS120	
D1153	8-719-912-20	DIODE 1SS120	
< FILTER >			
FL601	1-519-711-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC601	8-759-053-97	IC uPD75212ACW-A21	
IC602	8-749-920-83	IC GP1U52XB	
IC1101	8-759-634-51	IC M5218AP	
IC1102	8-759-634-51	IC M5218AP	
IC1103	8-759-820-62	IC LB1639	
IC1104	8-759-916-12	IC SN74HC00AN	
< COIL >			
L601	1-410-521-11	INDUCTOR 100uH	
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-900-80	TRANSISTOR DTC114ES	
Q1101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1102	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1121	8-729-900-36	TRANSISTOR DTC124ES	
Q1122	8-729-919-76	TRANSISTOR 2SA1175-HFE	

PANEL

Ref. No.	Part No.	Description	Remark
Q1136	8-729-900-36	TRANSISTOR DTC124ES	
Q1138	8-729-900-36	TRANSISTOR DTC124ES	
Q1139	8-729-900-36	TRANSISTOR DTC124ES	
Q1141	8-729-900-63	TRANSISTOR DTA124ES	
Q1143	8-729-900-80	TRANSISTOR DTC114ES	
Q1144	8-729-900-80	TRANSISTOR DTC114ES	
Q1145	8-729-900-61	TRANSISTOR DTA114ES	
Q1151	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
< RESISTOR >			
R601	1-249-429-11	CARBON 10K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-249-423-11	CARBON 3.3K 5% 1/4W	
R604	1-249-437-11	CARBON 47K 5% 1/4W	
R605	1-249-433-11	CARBON 22K 5% 1/4W	
R606	1-249-433-11	CARBON 22K 5% 1/4W	
R607	1-249-439-11	CARBON 68K 5% 1/4W	
R608	1-249-417-11	CARBON 1K 5% 1/4W	
R609	1-249-405-11	CARBON 100 5% 1/4W	
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-437-11	CARBON 47K 5% 1/4W	
R612	1-249-417-11	CARBON 1K 5% 1/4W	
R621	1-249-433-11	CARBON 22K 5% 1/4W	
R622	1-249-433-11	CARBON 22K 5% 1/4W	
R623	1-249-433-11	CARBON 22K 5% 1/4W	
R624	1-249-433-11	CARBON 22K 5% 1/4W	
R641	1-249-417-11	CARBON 1K 5% 1/4W	
R1101	1-249-441-11	CARBON 100K 5% 1/4W	
R1102	1-249-417-11	CARBON 1K 5% 1/4W	
R1103	1-249-431-11	CARBON 15K 5% 1/4W	
R1104	1-249-441-11	CARBON 100K 5% 1/4W	
R1105	1-249-433-11	CARBON 22K 5% 1/4W	
R1106	1-249-424-11	CARBON 3.9K 5% 1/4W	
R1107	1-249-441-11	CARBON 100K 5% 1/4W	
R1108	1-249-427-11	CARBON 6.8K 5% 1/4W	
R1109	1-249-412-11	CARBON 390 5% 1/4W	
R1110	1-249-431-11	CARBON 15K 5% 1/4W	
R1111	1-249-439-11	CARBON 68K 5% 1/4W	
R1112	1-249-433-11	CARBON 22K 5% 1/4W	
R1113	1-249-431-11	CARBON 15K 5% 1/4W	
R1114	1-249-429-11	CARBON 10K 5% 1/4W	
R1115	1-249-429-11	CARBON 10K 5% 1/4W	
R1116	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1117	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1118	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1119	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1120	1-249-423-11	CARBON 3.3K 5% 1/4W	
R1121	1-249-423-11	CARBON 3.3K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R1122	1-247-887-00	CARBON 220K 5% 1/4W	
R1123	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1124	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1125	1-249-433-11	CARBON 22K 5% 1/4W	
R1130	1-249-412-11	CARBON 390 5% 1/4W	
R1132	1-249-412-11	CARBON 390 5% 1/4W	
R1133	1-249-412-11	CARBON 390 5% 1/4W	
R1135	1-249-433-11	CARBON 22K 5% 1/4W	
R1143	1-249-433-11	CARBON 22K 5% 1/4W	
R1145	1-249-412-11	CARBON 390 5% 1/4W	
R1149	1-249-429-11	CARBON 10K 5% 1/4W	
R1151	1-249-441-11	CARBON 100K 5% 1/4W	
R1152	1-249-417-11	CARBON 1K 5% 1/4W	
R1154	1-249-441-11	CARBON 100K 5% 1/4W	
R1155	1-249-433-11	CARBON 22K 5% 1/4W	
R1156	1-249-424-11	CARBON 3.9K 5% 1/4W	
R1157	1-249-441-11	CARBON 100K 5% 1/4W	
R1158	1-249-427-11	CARBON 6.8K 5% 1/4W	
R1159	1-249-412-11	CARBON 390 5% 1/4W	
R1160	1-249-431-11	CARBON 15K 5% 1/4W	
R1161	1-249-439-11	CARBON 68K 5% 1/4W	
R1162	1-249-433-11	CARBON 22K 5% 1/4W	
R1163	1-249-431-11	CARBON 15K 5% 1/4W	
R1164	1-249-429-11	CARBON 10K 5% 1/4W	
R1165	1-249-429-11	CARBON 10K 5% 1/4W	
R1166	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1167	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1168	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1169	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1170	1-249-423-11	CARBON 3.3K 5% 1/4W	
R1171	1-249-423-11	CARBON 3.3K 5% 1/4W	
R1172	1-247-887-00	CARBON 220K 5% 1/4W	
R1173	1-249-421-11	CARBON 2.2K 5% 1/4W	
R1174	1-249-425-11	CARBON 4.7K 5% 1/4W	
< VARIABLE RESISTOR >			
RV1101	1-241-353-11	RES. VAR. CARBON 100K/100K (SURROUND)	
RV1102	1-241-353-11	RES. VAR. CARBON 100K/100K (CBFB)	
RV1103	1-241-351-11	RES. VAR. SLIDE 100K/100K (100Hz)	
RV1104	1-241-351-11	RES. VAR. SLIDE 100K/100K (330Hz)	
RV1105	1-241-351-11	RES. VAR. SLIDE 100K/100K (1KHz)	
RV1106	1-241-351-11	RES. VAR. SLIDE 100K/100K (3.3KHz)	
RV1107	1-241-351-11	RES. VAR. SLIDE 100K/100K (10KHz)	
RV1108	1-241-352-11	RES. VAR. CARBON 100K/100K (BALANCE)	
< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	

PANEL

POWER AMP

Ref. No.	Part No.	Description	Remark
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S612	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
S613	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
S614	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING +)	
S615	1-554-303-21	SWITCH, TACTILE (DUAL MODE TUNING -)	
S619	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S636	1-554-303-21	SWITCH, TACTILE (TAPE)	
S637	1-554-303-21	SWITCH, TACTILE (CD)	
S638	1-554-303-21	SWITCH, TACTILE (TUNER)	
S639	1-554-303-21	SWITCH, TACTILE (PHONO)	
S640	1-554-303-21	SWITCH, TACTILE (VIDEO)	

< CRYSTAL >

X601 1-567-775-11 VIBRATOR, CERAMIC (4.19MHz)

- * A-4347-068-A POWER AMP BOARD, COMPLETE (AEP, EE, UK)
- * A-4347-366-A POWER AMP BOARD, COMPLETE (G, IT)
- * A-4347-531-A POWER AMP BOARD, COMPLETE (US, CND)

< CAPACITOR >

C1201	1-124-257-00	ELECT	2.2uF	20%	50V
C1202	1-162-286-31	CERAMIC 220PF	10%	50V (US, CND, AEP, EE, UK)	
C1202	1-162-290-31	CERAMIC	470PF	10%	50V (G, IT)
C1203	1-162-286-31	CERAMIC 220PF	10%	50V (US, CND, AEP, EE, UK)	
C1203	1-162-290-31	CERAMIC	470PF	10%	50V (G, IT)
C1204	1-124-910-11	ELECT	47uF	20%	50V (US, CND)
C1204	1-124-477-11	ELECT	47uF	20%	25V (AEP, G, IT, EE, UK)
C1205	1-126-233-11	ELECT	22uF	20%	50V (US, CND)
C1205	1-124-910-11	ELECT	47uF	20%	50V (AEP, G, IT, EE, UK)
C1206	1-124-122-11	ELECT	100uF	20%	50V
C1207	1-136-165-00	FILM	0.1uF	5%	50V
C1208	1-126-233-11	ELECT	22uF	20%	50V
C1209	1-136-165-00	FILM	0.1uF	5%	50V
C1210	1-136-163-00	FILM	0.068uF	5%	50V
C1211	1-136-163-00	FILM	0.068uF	5%	50V
C1220	1-124-910-11	ELECT	47uF	20%	50V
C1230	1-161-494-00	CERAMIC	0.022uF	25V	(G, IT)
C1231	1-161-494-00	CERAMIC	0.022uF	25V	(G, IT)
C1232	1-161-494-00	CERAMIC	0.022uF	25V	(G, IT)

Ref. No.	Part No.	Description	Remark
C1233	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)
C1251	1-124-257-00	ELECT	2.2uF 20% 50V
C1252	1-162-286-31	CERAMIC 220PF	10% 50V (US, CND, AEP, EE, UK)
C1252	1-162-290-31	CERAMIC	470PF 10% 50V (G, I)
C1253	1-162-286-31	CERAMIC 220PF	10% 50V (US, CND, AEP, EE, UK)
C1253	1-162-290-31	CERAMIC	470PF 10% 50V (G, IT)
C1254	1-124-910-11	ELECT	47uF 20% 50V (US, CND)
C1254	1-124-477-11	ELECT	47uF 20% 25V (AEP, G, IT, EE, UK)
C1255	1-126-233-11	ELECT	22uF 20% 50V (US, CND)
C1255	1-124-910-11	ELECT	47uF 20% 50V (AEP, G, IT, EE, UK)
C1256	1-124-122-11	ELECT	100uF 20% 50V
C1257	1-136-165-00	FILM	0.1uF 5% 50V
C1260	1-136-163-00	FILM	0.068uF 5% 50V
C1261	1-136-163-00	FILM	0.068uF 5% 50V
C1280	1-161-494-00	CERAMIC	0.022uF 25V (G, IT)

< DIODE >

D1201	8-719-912-20	DIODE	1SS120
D1251	8-719-912-20	DIODE	1SS120

< IC >

IC1201 8-749-920-19 IC STK4122MK2

< COIL >



L1201	1-420-872-00	COIL, AIR CORE
L1251	1-420-872-00	COIL, AIR CORE


< TRANSISTOR >

Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q1202	8-729-900-80	TRANSISTOR	DTC114ES
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

< RESISTOR >

R1201	1-249-417-11	CARBON	1K	5%	1/4W
R1202	1-249-438-11	CARBON	56K	5%	1/4W
R1203	1-249-417-11	CARBON	1K	5%	1/4W
R1204	1-249-438-11	CARBON	56K	5%	1/4W
R1205	1-249-425-11	CARBON	4.7K	5%	1/4W
R1206	1-249-425-11	CARBON	4.7K	5%	1/4W
R1207	1-249-425-11	CARBON	4.7K	5%	1/4W
R1208	1-249-425-11	CARBON	4.7K	5%	1/4W
△ R1209	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R1210	1-217-151-00	RES, METAL PLATE			0.22
R1211	1-249-417-11	CARBON	1K	5%	1/4W
R1212	1-249-431-11	CARBON	15K	5%	1/4W
R1213	1-249-441-11	CARBON	100K	5%	1/4W
R1214	1-249-421-11	CARBON	2.2K	5%	1/4W

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POWER AMP

POWER

SW

Ref. No.	Part No.	Description	Remark		
R1215	1-249-421-11	CARBON	2. 2K	5%	1/4W
R1216	1-249-421-11	CARBON	2. 2K	5%	1/4W
R1217	1-249-421-11	CARBON	2. 2K	5%	1/4W
R1218	1-249-397-11	CARBON	22	5%	1/4W
R1219	1-249-397-11	CARBON	22	5%	1/4W
R1220	1-249-397-11	CARBON	22	5%	1/4W
R1221	1-249-397-11	CARBON	22	5%	1/4W
R1227	1-249-429-11	CARBON	10K	5%	1/4W
R1228	1-247-881-00	CARBON	120K	5%	1/4W
R1229	1-249-439-11	CARBON	68K	5%	1/4W
R1230	1-249-439-11	CARBON	68K	5%	1/4W
R1231	1-249-417-11	CARBON	1K	5%	1/4W
R1232	1-249-428-11	CARBON	8. 2K	5%	1/4W
R1238	1-249-433-11	CARBON	22K	5%	1/4W
R1239	1-249-426-11	CARBON	5. 6K	5%	1/4W
R1251	1-249-417-11	CARBON	1K	5%	1/4W
R1252	1-249-438-11	CARBON	56K	5%	1/4W
R1253	1-249-417-11	CARBON	1K	5%	1/4W
R1254	1-249-438-11	CARBON	56K	5%	1/4W
R1255	1-249-425-11	CARBON	4. 7K	5%	1/4W
R1256	1-249-425-11	CARBON	4. 7K	5%	1/4W
R1257	1-249-425-11	CARBON	4. 7K	5%	1/4W
R1258	1-249-425-11	CARBON	4. 7K	5%	1/4W
△ R1259	1-212-881-11	FUSIBLE	100	5%	1/4W F
△ R1260	1-217-151-00	RES. METAL PLATE			0. 22
R1261	1-249-417-11	CARBON	1K	5%	1/4W
R1262	1-249-431-11	CARBON	15K	5%	1/4W
R1263	1-249-441-11	CARBON	100K	5%	1/4W
R1268	1-249-397-11	CARBON	22	5%	1/4W
R1269	1-249-397-11	CARBON	22	5%	1/4W
R1270	1-249-397-11	CARBON	22	5%	1/4W
R1271	1-249-397-11	CARBON	22	5%	1/4W

*	1-642-220-11	POWER BOARD	*****		
	1-533-217-31	HOLDER, FUSE			
*	1-564-321-00	PIN, CONNECTOR 2P			
< CAPACITOR >					
C1301	1-161-744-00	CERAMIC	0. 01uF		400V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4. 7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1348	1-164-159-11	CERAMIC	0. 1uF		50V

Ref. No.	Part No.	Description	Remark		
< CONNECTOR >					
* CN1301	1-564-509-11	PLUG, CONNECTOR 6P			
CN1302	1-506-469-11	CONNECTOR 4P, MALE			
* CN1350	1-580-230-11	PIN, CONNECTOR (PC BOARD) 3P			
< DIODE >					
D1307	8-719-002-60	DIODE UZL-33L			
D1309	8-719-014-66	DIODE UZP-5.6B			
D1311	8-719-200-82	DIODE 11ES2			
< FUSE >					
△ F1301	1-532-237-00	FUSE, TIME LAG (T3. 15A)	(AEP, G. IT, EE, UK)		
△ F1301	1-576-107-11	FUSE (T3. 15A)	(US, CND)		
△ F1302	1-532-237-00	FUSE, TIME LAG (T3. 15A)	(AEP, G. IT, EE, UK)		
△ F1302	1-576-107-11	FUSE (T3. 15A)	(US, CND)		
△ F1303	1-532-350-00	FUSE, TIME LAG (T4. 0A)	(AEP, G. IT, EE, UK)		
△ F1303	1-576-108-11	FUSE (T4. 0A)	(US, CND)		
△ F1304	1-532-350-00	FUSE, TIME LAG (T4. 0A)	(AEP, G. IT, EE, UK)		
△ F1304	1-576-108-11	FUSE (T4. 0A)	(US, CND)		
< TRANSISTOR >					
Q1301	8-729-141-83	TRANSISTOR 2SB1094-LK			
< RESISTOR >					
R1303	1-249-421-11	CARBON	2. 2K	5%	1/4W
R1304	1-249-425-11	CARBON	4. 7K	5%	1/4W
R1391	1-202-725-00	SOLID	3. 3M	10%	1/2W (US, CND)

*	1-641-709-11	SW BOARD			

< CAPACITOR >					
C701	1-124-903-11	ELECT	1uF	20%	50V
< CONNECTOR >					
* CNJ701	1-568-834-11	SOCKET, CONNECTOR 15P			
< TRANSISTOR >					
Q701	8-729-900-89	TRANSISTOR DTC144ES			
Q702	8-729-900-89	TRANSISTOR DTC144ES			
Q703	8-729-900-89	TRANSISTOR DTC144ES			
< RESISTOR >					
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-249-437-11	CARBON	47K	5%	1/4W
R703	1-249-424-11	CARBON	3. 9K	5%	1/4W
R704	1-249-427-11	CARBON	6. 8K	5%	1/4W

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SW

TC MAIN

Ref. No.	Part No.	Description	Remark		
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-416-11	CARBON	820	5%	1/4W
R707	1-249-423-11	CARBON	3.3K	5%	1/4W
< SWITCH >					
S701	1-572-994-11	SWITCH, PUSH (3 KEY) (TAPE SELECT/DUBBING SPEED/DOLBY NR)			

*	A-4345-901-A	TC MAIN BOARD, COMPLETE (US, AEP, G, IT, EE, UK)			
*	A-4347-525-A	TC MAIN BOARD, COMPLETE (CND) *****			
	1-535-995-11	JUMPER, FILM (WITH TERMINAL)			
	7-685-646-79	SCREW +BVTP	3X8	TYPE2	N-S
< CAPACITOR >					
C400	1-162-289-31	CERAMIC	390PF	10%	50V
C401	1-136-157-00	FILM	0.022uF	5%	50V
C402	1-124-767-00	ELECT	2.2uF	20%	50V
C403	1-124-443-00	ELECT	100uF	20%	10V
C404	1-162-289-31	CERAMIC	390PF	10%	50V
C405	1-136-157-00	FILM	0.022uF	5%	50V
C406	1-124-767-00	ELECT	2.2uF	20%	50V
C407	1-124-443-00	ELECT	100uF	20%	10V
C408	1-130-479-00	MYLAR	0.0047uF	5%	50V
C409	1-162-289-31	CERAMIC	390PF	10%	50V
C410	1-124-903-11	ELECT	1uF	20%	50V
C411	1-124-925-11	ELECT	2.2uF	20%	100V
C413	1-124-472-11	ELECT	470uF	20%	10V
C414	1-131-587-11	TANTALUM	0.68uF	5%	35V
C415	1-124-257-00	ELECT	2.2uF	20%	50V
C416	1-126-163-11	ELECT	4.7uF	20%	50V
C417	1-124-465-00	ELECT	0.47uF	20%	50V
C418	1-124-907-11	ELECT	10uF	20%	50V
C419	1-124-907-11	ELECT	10uF	20%	50V
C420	1-124-907-11	ELECT	10uF	20%	50V
C421	1-162-284-31	CERAMIC	150PF	10%	50V
C422	1-136-273-91	FILM	75PF	5%	630V
C423	1-136-271-00	FILM	56PF	5%	630V
C424	1-162-280-31	CERAMIC	82PF	10%	50V
C441	1-162-282-31	CERAMIC	100PF	10%	50V
C442	1-164-159-11	CERAMIC	0.1uF		50V
C443	1-124-903-11	ELECT	1uF	20%	50V
C446	1-162-282-31	CERAMIC	100PF	10%	50V
C500	1-162-289-31	CERAMIC	390PF	10%	50V
C501	1-136-157-00	FILM	0.022uF	5%	50V
C502	1-124-767-00	ELECT	2.2uF	20%	50V

Ref. No.	Part No.	Description	Remark		
C503	1-124-443-00	ELECT	100uF	20%	10V
C504	1-162-289-31	CERAMIC	390PF	10%	50V
C505	1-136-157-00	FILM	0.022uF	5%	50V
C506	1-124-767-00	ELECT	2.2uF	20%	50V
C507	1-124-443-00	ELECT	100uF	20%	10V
C508	1-130-479-00	MYLAR	0.0047uF	5%	50V
C509	1-162-289-31	CERAMIC	390PF	10%	50V
C511	1-124-925-11	ELECT	2.2uF	20%	100V
C513	1-124-472-11	ELECT	470uF	20%	10V
C514	1-131-587-11	TANTALUM	0.68uF	5%	35V
C515	1-124-257-00	ELECT	2.2uF	20%	50V
C516	1-126-163-11	ELECT	4.7uF	20%	50V
C517	1-124-465-00	ELECT	0.47uF	20%	50V
C518	1-124-907-11	ELECT	10uF	20%	50V
C520	1-124-907-11	ELECT	10uF	20%	50V
C521	1-162-284-31	CERAMIC	150PF	10%	50V
C522	1-136-273-91	FILM	75PF	5%	630V
C523	1-136-271-00	FILM	56PF	5%	630V
C524	1-162-280-31	CERAMIC	82PF	10%	50V
C525	1-136-562-11	FILM	0.0082uF	5%	630V
C526	1-130-482-00	MYLAR	0.0082uF	5%	50V
C527	1-124-925-11	ELECT	2.2uF	20%	100V
C528	1-130-482-00	MYLAR	0.0082uF	5%	50V
C529	1-130-478-00	MYLAR	0.0039uF	5%	50V
C530	1-130-478-00	MYLAR	0.0039uF	5%	50V
C531	1-124-902-00	ELECT	0.47uF	20%	50V
C532	1-124-925-11	ELECT	2.2uF	20%	100V
C533	1-124-556-11	ELECT	2200uF	20%	16V
C534	1-124-120-11	ELECT	220uF	20%	25V
C535	1-124-927-11	ELECT	4.7uF	20%	100V
C536	1-124-903-11	ELECT	1uF	20%	50V
C540	1-124-472-11	ELECT	470uF	20%	10V
C541	1-162-282-31	CERAMIC	100PF	10%	50V
C542	1-164-159-11	CERAMIC	0.1uF		50V
C546	1-162-282-31	CERAMIC	100PF	10%	50V
C560	1-124-472-11	ELECT	470uF	20%	10V
< CONNECTOR >					
* CN400	1-564-506-11	PLUG, CONNECTOR 3P			
* CN401	1-564-509-11	PLUG, CONNECTOR 6P			
* CN402	1-564-505-11	PLUG, CONNECTOR 2P			
* CN405	1-560-061-00	PIN, CONNECTOR 3P			
* CN407	1-560-060-00	PIN, CONNECTOR 2P			
* CN410	1-564-506-11	PLUG, CONNECTOR 3P			
* CN411	1-564-508-11	PLUG, CONNECTOR 5P			
* CN412	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P			

TC MAIN

VOL

Ref. No.	Part No.	Description	Remark
< DIODE >			
D500	8-719-912-20	DIODE 1SS120	
D501	8-719-912-20	DIODE 1SS120	
D502	8-719-912-20	DIODE 1SS120	
D503	8-719-912-20	DIODE 1SS120	
D504	8-719-912-20	DIODE 1SS120	
D505	8-719-912-20	DIODE 1SS120	
D506	8-719-912-20	DIODE 1SS120	
D507	8-719-912-20	DIODE 1SS120	
< IC >			
IC400	8-759-111-44	IC uPC4570C-1	
IC401	8-759-111-44	IC uPC4570C-1	
IC402	8-759-000-49	IC MC14066BCP	
IC403	8-752-057-21	IC CXA1100P	
IC404	8-752-038-02	IC CXA1198AP	
IC501	8-759-140-11	IC uPD4011BC	
IC502	8-759-040-01	IC MC14001BCP	
IC503	8-759-140-11	IC uPD4011BC	
IC515	8-759-604-86	IC M5F7807L	
IC516	8-759-604-90	IC M5F7907L	
< COIL >			
L400	1-410-780-11	INDUCTOR 27mH	
L500	1-410-780-11	INDUCTOR 27mH	
< TRANSISTOR >			
Q400	8-729-900-89	TRANSISTOR DTC144ES	
Q401	8-729-900-89	TRANSISTOR DTC144ES	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q500	8-729-900-89	TRANSISTOR DTC144ES	
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q504	8-729-194-57	TRANSISTOR 2SC945-P	
Q505	8-729-194-57	TRANSISTOR 2SC945-P	
Q506	8-729-281-52	TRANSISTOR 2SC1815-Y	
Q507	8-729-900-61	TRANSISTOR DTA114ES	
Q508	8-729-900-80	TRANSISTOR DTC114ES	
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q511	8-729-900-65	TRANSISTOR DTA144ES	
Q512	8-729-900-89	TRANSISTOR DTC144ES	
< RESISTOR >			
R415	1-215-460-00	METAL 43K 1% 1/6W	
R417	1-249-437-11	CARBON 47K 5% 1/4W	
R418	1-247-838-00	CARBON 2K 5% 1/4W	
R431	1-249-435-11	CARBON 33K 5% 1/4W	
R432	1-247-868-11	CARBON 36K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R433	1-247-883-00	CARBON 150K 5% 1/4W	
R436	1-249-437-11	CARBON 47K 5% 1/4W	
R437	1-249-437-11	CARBON 47K 5% 1/4W	
R438	1-247-874-11	CARBON 62K 5% 1/4W	
R439	1-249-440-11	CARBON 82K 5% 1/4W	
R441	1-247-882-11	CARBON 130K 5% 1/4W	
R442	1-249-435-11	CARBON 33K 5% 1/4W	
R443	1-247-868-11	CARBON 36K 5% 1/4W	
R446	1-249-438-11	CARBON 56K 5% 1/4W	
R450	1-247-868-11	CARBON 36K 5% 1/4W	
R451	1-247-872-11	CARBON 51K 5% 1/4W	
R452	1-249-437-11	CARBON 47K 5% 1/4W	
R453	1-247-881-00	CARBON 120K 5% 1/4W	
R517	1-249-437-11	CARBON 47K 5% 1/4W	
R518	1-247-838-00	CARBON 2K 5% 1/4W	
R527	1-249-441-11	CARBON 100K 5% 1/4W	
R532	1-249-393-11	CARBON 10 5% 1/4W	
R538	1-249-385-11	CARBON 2.2 5% 1/6W	
R539	1-249-392-11	CARBON 8.2 5% 1/4W	
R540	1-249-392-11	CARBON 8.2 5% 1/4W	
< VARIABLE RESISTOR >			
RV400	1-230-496-11	RES. ADJ. CARBON 10K	
RV401	1-230-496-11	RES. ADJ. CARBON 10K	
RV402	1-230-496-11	RES. ADJ. CARBON 10K	
RV403	1-230-499-11	RES. ADJ. CARBON 100K	
RV500	1-230-496-11	RES. ADJ. CARBON 10K	
RV501	1-230-496-11	RES. ADJ. CARBON 10K	
RV502	1-230-496-11	RES. ADJ. CARBON 10K	
RV503	1-230-499-11	RES. ADJ. CARBON 100K	
RV504	1-230-495-11	RES. ADJ. CARBON 2.2K	
RV505	1-230-495-11	RES. ADJ. CARBON 2.2K	
< RELAY >			
RY400	1-515-614-11	RELAY	
< TRANSFORMER >			
T500	1-433-349-11	TRANSFORMER, BIAS OSCILLATION	

*	1-641-706-11	VOL BOARD	

< CAPACITOR >			
C1120	1-161-379-00	CERAMIC 0.01uF 20% 25V	
< VARIABLE RESISTOR >			
RV1109	1-241-350-11	RES. VAR. CARBON 100K/100K (VOLUME)	

Ref. No.	Part No.	Description	Remark
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MISCELLANEOUS

15	1-590-459-11	WIRE, FLAT TYPE (11 CORE)	
16	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
17	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
18	1-590-901-11	WIRE, FLAT TYPE (22 CORE)	
△306	8-848-144-11	DEVICE, OPTICAL KSS-240A	

△CNP13011	575-651-61	CORD, POWER (AEP, G, IT, EE)	
△CNP13011	575-652-61	CORD, POWER (UK)	
△CNP13011	690-609-11	CORD, POWER (US, CND)	
HE1	1-543-673-11	HEAD, MAGNETIC (ERASE) (DECK B)	
HP1	1-543-319-11	HEAD, MAGNETIC (PB) (DECK A)	

HRP1	1-543-319-11	HEAD, MAGNETIC (REC/PB) (DECK B)	
M1	X-3362-377-1	MOTOR (WH) ASSY	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	MOTOR ASSY (SPINDLE)	
M191	A-4604-363-A	MOTOR (L) ASSY	

△S1301	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	
△T1301	1-450-595-11	TRANSFORMER, POWER (AEP, G, IT, EE)	
△T1301	1-450-783-11	TRANSFORMER, POWER (UK)	
△T1301	1-450-817-11	TRANSFORMER, POWER (US)	
△T1301	1-450-818-11	TRANSFORMER, POWER (CND)	

ACCESSORIES & PACKING MATERIALS

	1-465-962-11	COMMANDER (STANDARD TYPE) (RM-S171)	
	1-501-369-11	ANTENNA, LEAD	
	1-501-374-11	ANTENNA, LOOP	
*	3-376-136-01	CUSHION (HALF)	
	3-754-667-41	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)	
	3-754-667-51	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN) (AEP, IT)	
	4-921-934-01	SHEET, PROTECTION	
	4-948-236-01	CUSHION (UK)	
*	4-949-428-11	CUSHION (US, CND, AEP, G, IT)	
*	4-950-626-01	INDIVIDUAL CARTON (AEP, IT)	

HARDWARE LIST

#1	7-682-547-04	SCREW +BVTT 3X6 (S)	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#4	7-621-849-00	SCREW, TAPPING	
#5	7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT	
#6	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S	
#7	7-621-775-20	SCREW +B 2.6X5	
#8	7-685-133-19	SCREW +P 2.6X6 TYPE2	
#9	7-623-921-01	RING, RETAINING, CAPSTAN	

Ref. No.	Part No.	Description	Remark
----------	----------	-------------	--------

#10	7-688-001-01	W 2, SMALL	
#11	7-621-775-10	SCREW +B 2.6X4	
#12	7-621-255-15	SCREW +P 2X3	
#13	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

PS-LX49/LX49P

SERVICE MANUAL

US Model
PS-LX49/LX49P

Italian Model
PS-LX49

E Model
PS-LX49P

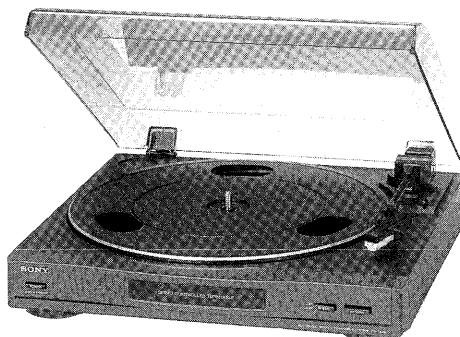


Photo : PS-LX49

SPECIFICATIONS

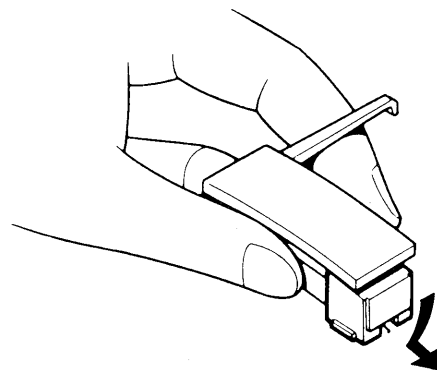
Turntable	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 1/3 rpm/45 rpm switchable
Wow and flutter	0.25% (WRMS)
Signal-to-noise ratio	45dB (DIN-B)
Automatic system	Return, reject
Tonearm	
Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 1/4 in.)
Cartridge	
Type	Moving magnet type
Frequency response	20 Hz-20kHz
Stylus	CN-234
General	
Dimensions	355x97x342 mm(w/h/d) (14x3 5/8x13 1/2 inches)
Weight	Approx. 2.6kg (5 lb 12 oz)
Power requirements	220V AC50Hz (PS-LX49) 12V DC (PS-LX49P)
Power consumption	2W
Accessory supplied	45-rpm adaptor (1)
Optional accessories	Replacement stylus CN-234 Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An CN-234 replacement stylus is available at your Sony dealer.

Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

STEREO TURNTABLE SYSTEM
SONY®

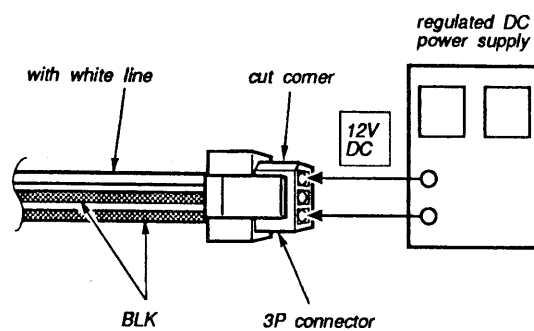


使用時は添付資料も参照のこと
Refer to the additional documents.

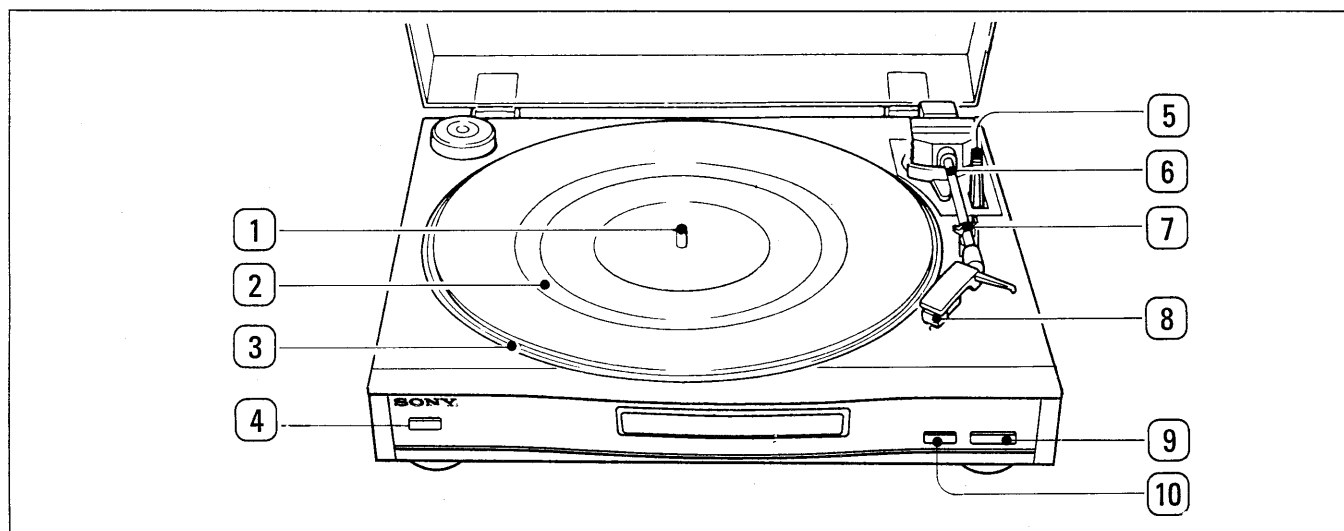
REPAIRING PRECAUTION

[To supply B+ voltage]

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

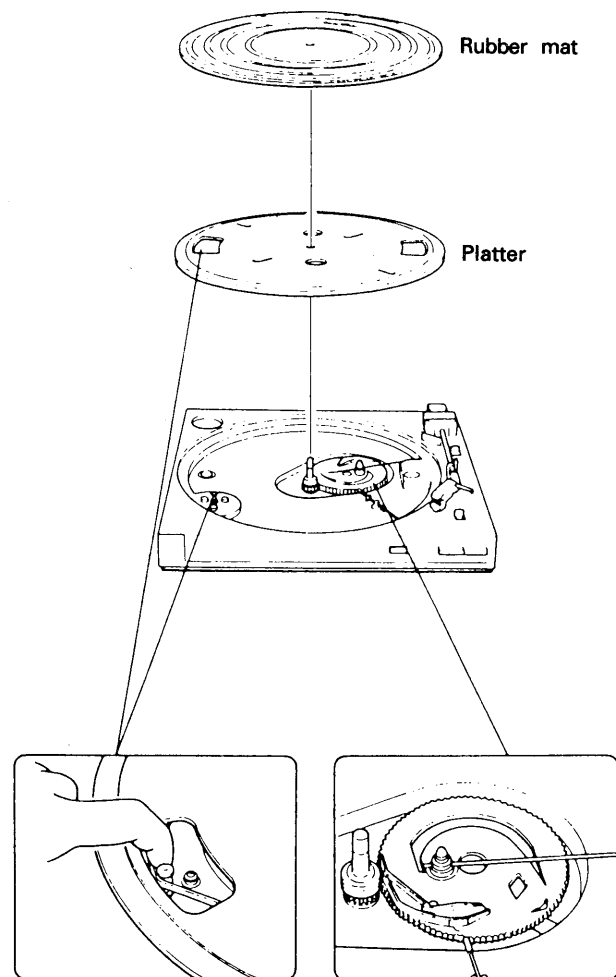


LOCATION AND FUNCTION OF CONTROLS



- 1 Center spindle
- 2 Rubber mat
- 3 Turntable platter
- 4 POWER switch (PS-LX49 only)
- 5 Cueing lever (∇ / ∇)
- 6 Tonearm
- 7 Arm rest
- 8 Cartridge
- 9 REJECT button
- 10 SPEED select button
Allows selection of 45rpm or 33rpm turntable speed.

TURNTABLE ASSEMBLY

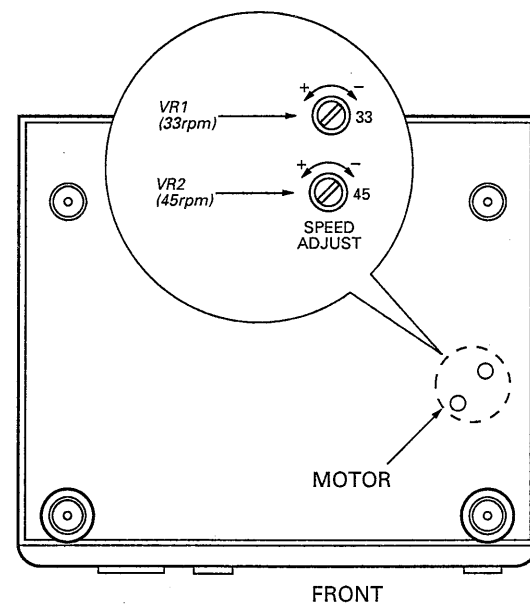


Hook the belt on the motor pulley.
If the belt is removed from the platter, replace it with the glossy side outward.

Speed Adjustment

Note: Be sure to perform 45rpm adjustment before 33rpm.

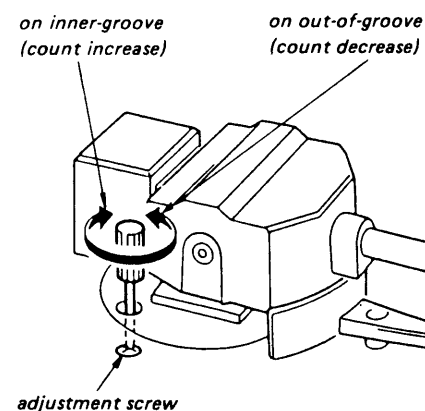
1. Place a stroboscope board on the turntable sheet.
Press the START button.
Adjust VR2 so that the striped pattern of stroboscope board is stationary.
2. Set the SPEED switch to 45.
Adjust VR1 in the same way.



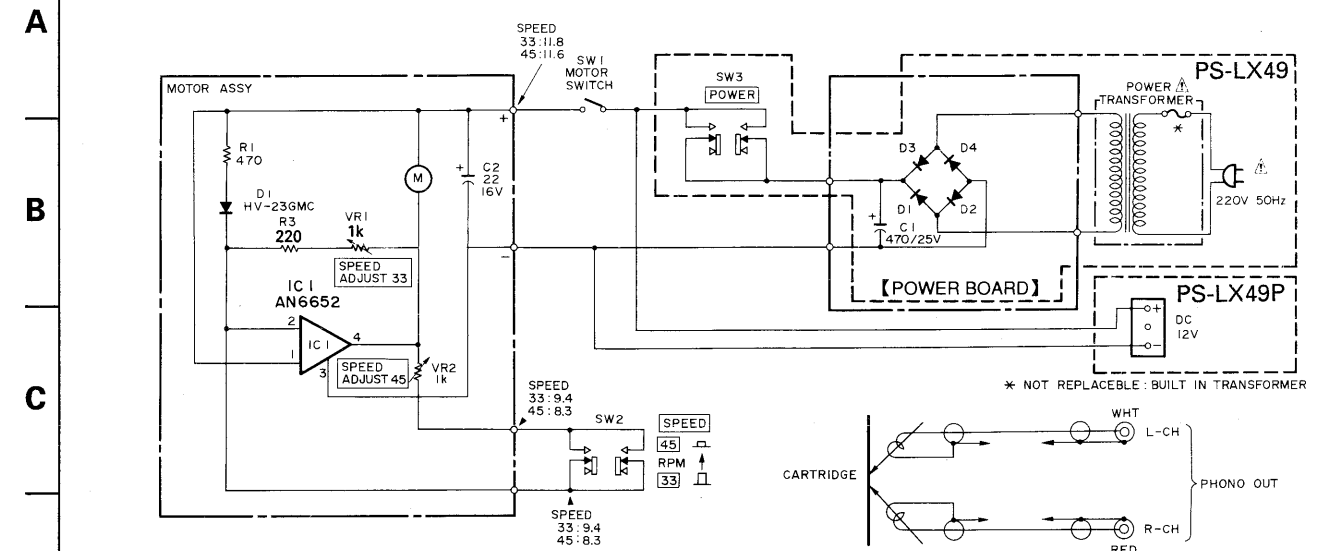
Stylus Drop-point Adjustment

1. Place a test record (YFSC-16) on the turntable sheet.
2. Set the SPEED switch to 33.
3. Press the START button.
4. By using a screwdriver, turn the adjustment screw so that the stylus tip drops on the record at the 7-17 counts position.
5. Move the arm to return detecting groove and confirm that the auto-return operation is started normally.

Note: The proper adjustment for a 30cm record is also correct for a 17cm record.
when turning adjustment screw, put the arm on the arm rest.



SCHEMATIC DIAGRAM



NOTE:

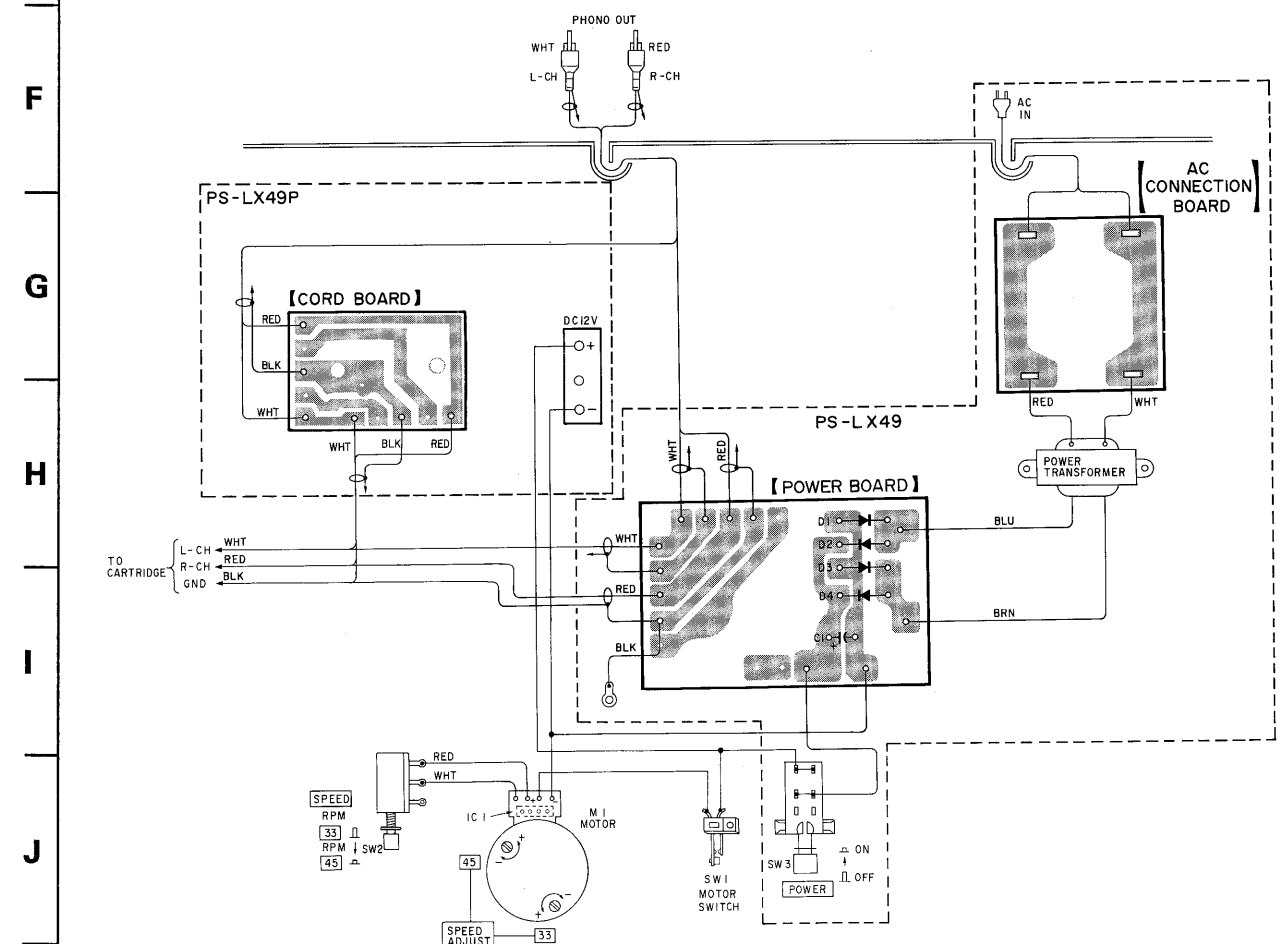
- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.

Switches:

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

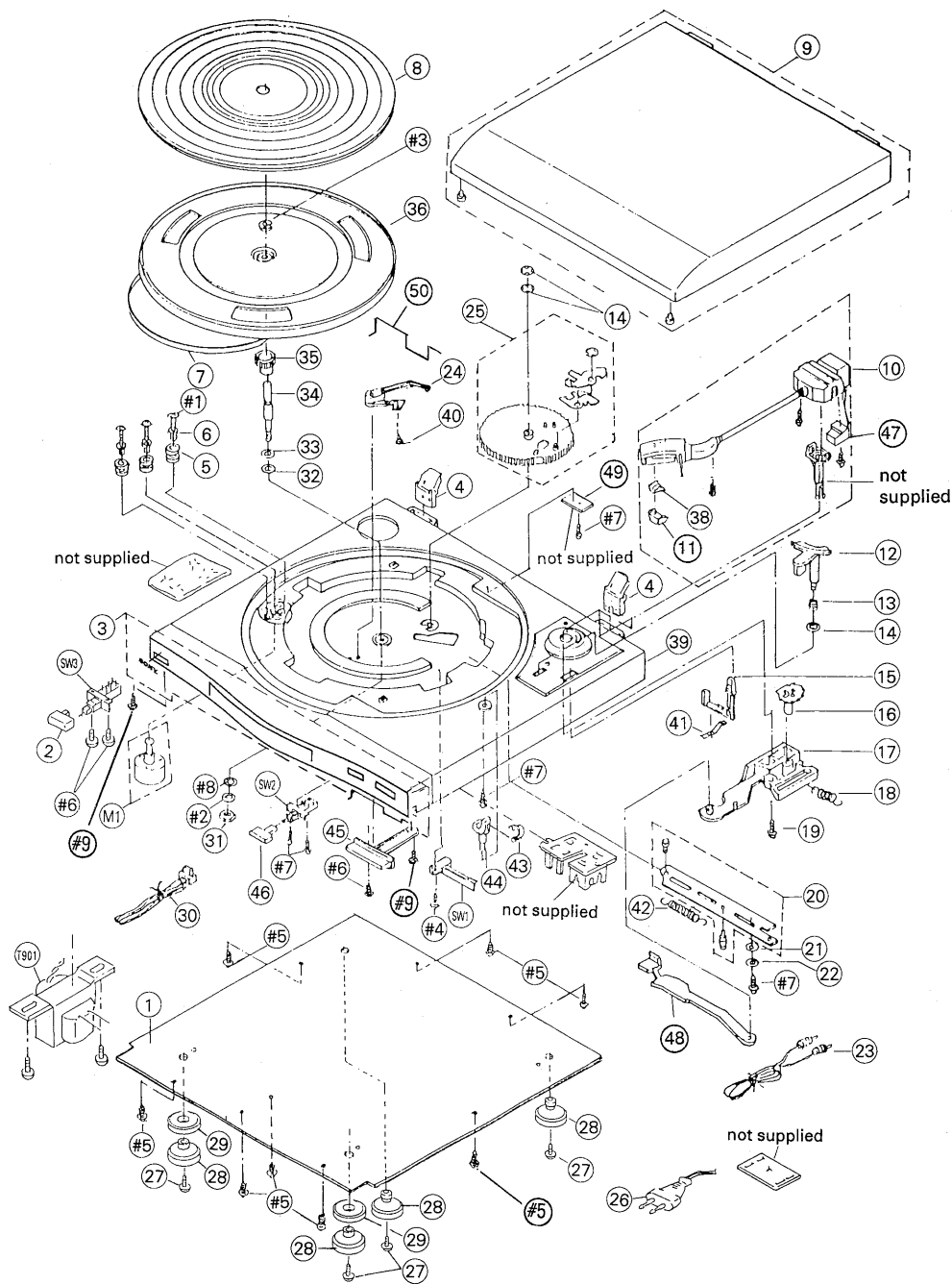
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

WIRING DIAGRAM



EXPLODED VIEW

- NOTE:
 - XX, -X mean standardized parts, so they may have some differences from the original one.
 - The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
- Screw(# mark) list is given in the last of this parts list.
- The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.



Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
1	4-950-488-01	BUTTON BOARD		5	4-947-505-01	CUSHION MOTOR	
2	4-950-507-01	KNOB POWER (49:US, IT)		6	4-947-504-01	COLLAR	
3	A-4660-136-A	PANEL (G) ASSY, FRONT (49P:US, E)		7	4-947-503-01	BELT	
3	A-4660-144-A	PANEL (B) ASSY, FRONT (49:US, IT)		8	4-947-539-01	RUBBER MAT	
4	4-947-476-01	HINGE		9	A-4604-946-A	COVER ASSY, DUST	

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
10	A-4604-940-A	ARM ASSY, TONE		29	4-950-489-01	FOOT RING (49:US/49P:US, E)	
11	4-948-095-01	COVER CARTRIDGE		30	1-696-145-11	DC CORD (PS-LX49P)	
12	4-947-466-01	TONE ARM ELEVATOR		31	4-947-510-01	NUT	
13	4-947-467-01	SPRING (6)		32	3-451-162-01	WASHER (56)	
14	4-947-514-01	4MM CS RING		33	3-701-445-21	WASHER	
15	4-947-468-01	LEVER, CUEING		34	4-947-498-01	STELL BALL	
16	4-947-470-01	ADJUST CAM		35	4-947-497-01	GEAR	
* 17	4-947-471-01	LINK, RETURN		36	4-947-494-01	TURNTABLE PLATTER	
18	4-947-472-01	SPRING (9-1)		38	4-951-290-01	STYLUS (CN-234)	
19	4-948-097-01	SCREW (68)		39	4-947-475-01	MAIN CABINET (G) (49P:US, E)	
20	A-4604-947-A	RETURN ASSY, LEVER		39	4-950-487-01	MAIN CABINET (B) (49:US, IT)	
21	3-659-350-01	WASHER		40	4-947-496-01	SPRING (34)	
22	4-890-173-01	WASHER		* 41	4-947-477-01	SPRING SHEET	
23	1-696-142-11	PHONO CORD		42	4-947-485-01	SPRING (22)	
24	4-947-495-01	WIPER REJECT		43	4-947-490-01	ARM CLIP	
25	A-4604-916-A	GEAR ASSY, SPUR		44	4-947-491-01	ARM REST	
26	1-696-382-11	CORD AC (PS-LX49) (US)		45	4-950-485-01	KNOB RETURN	
26	1-696-383-11	CORD AC (PS-LX49) (IT)		46	4-950-486-01	KNOB SPEED	
27	4-950-497-01	FOOT SEAT		47	4-947-464-01	COUNTER WEIGHT	
28	4-950-490-01	PLASTIC STAND		* 48	4-947-487-01	RETURN LINK	
				49	1-644-410-11	P.C BOARD (PS-LX49P)	
				50	4-948-101-01	SPRING (38)	

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.

- XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms
METAL : Metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- SEMICONDUCTORS
In each case, u : μ , for example :
uA...: μ A..., uPA...: μ PA...,
uPB...: μ PB..., uPC...: μ PC...,
uPD...: μ PD...
- CAPACITORS
MF : μ F, PF : μ μ F
- COILS
MMH : mH, uH : μ H

Ref.No.	Part No.	Description	Remarks	Ref.No.	Part No.	Description	Remarks
23	1-696-142-11	PHONO CORD		*	4-947-532-01	SNOW BOX (L)	
26	1-696-382-11	CORD AC (PS-LX49) (US)		*	4-947-533-01	SNOW BOX (R)	
26	1-696-383-11	CORD AC (PS-LX49) (IT)					
30	1-696-145-11	DC CORD (PS-LX49P)					
* 49	1-644-410-11	P.C BOARD (PS-LX49P)					
M1	A-4604-945-A	MOTOR ASSY					
SW1	1-692-186-11	SWITCH (MOTOR SW)					
SW2	1-692-187-11	PUSH SWITCH (SPEED SW)					
SW3	1-692-211-11	SWITCH (POWER) (PS-LX49)					
Δ T901	1-450-986-11	TRANSFORMER (PS-LX49) (US)					
Δ T901	1-450-987-11	TRANSFORMER (PS-LX49) (IT)					

ACCESSORIES & PACKING MATERIALS							

3-754-840-21 MANUAL, INSTRUCTION (English) (US)							
3-754-840-41 MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (Italian)							

HARDWARE LIST

#1	7-621-773-87	SCREW (64)
#2	7-623-210-22	WASHER (57)
#3	7-624-110-04	6MM E RING
#4	7-685-105-01	SCREW (59)
#5	7-685-147-21	SCREW (70)
#6	7-685-646-79	SCREW (62)
#7	7-685-647-79	SCREW (58)
#8	7-688-005-01	WASHER (69)
#9	7-685-146-21	SCREW (60)

Sony Corporation

Audio Group

- 6 -

English
92C1949-1
Printed in Japan
© 1992.3

PS-LX49/LX49P

SONY SERVICE MANUAL

US Model
PS-LX49/LX49P

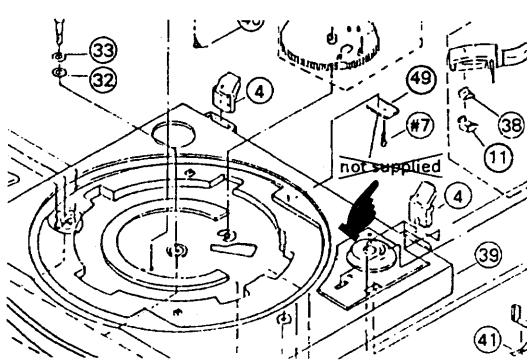
Italian Model
PS-LX49

E Model
PS-LX49P

CORRECTION-1

Correct your service manual as shown below.

 : indicates corrected portion.

Page	INCORRECT			CORRECT	
	No.	Part No.	Description	Part No.	Description
6	49	1-644-410-11	P.C BOARD (PS-LX49P)	* 1-644-410-11	CORD BOARD (PS-LX49P)
	49			* 1-652-482-11	PHONO BOARD (PS-LX49)
5					

Schematic Diagram and Wiring Diagram

Page	Model	INCORRECT	CORRECT
4	PS-LX49	POWER BOARD	PHONO BOARD